

Autopista 9 de Julio Sur, Buenos Aires: a regeneration project for a neglected urban highway environment

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Kasteelpark 1

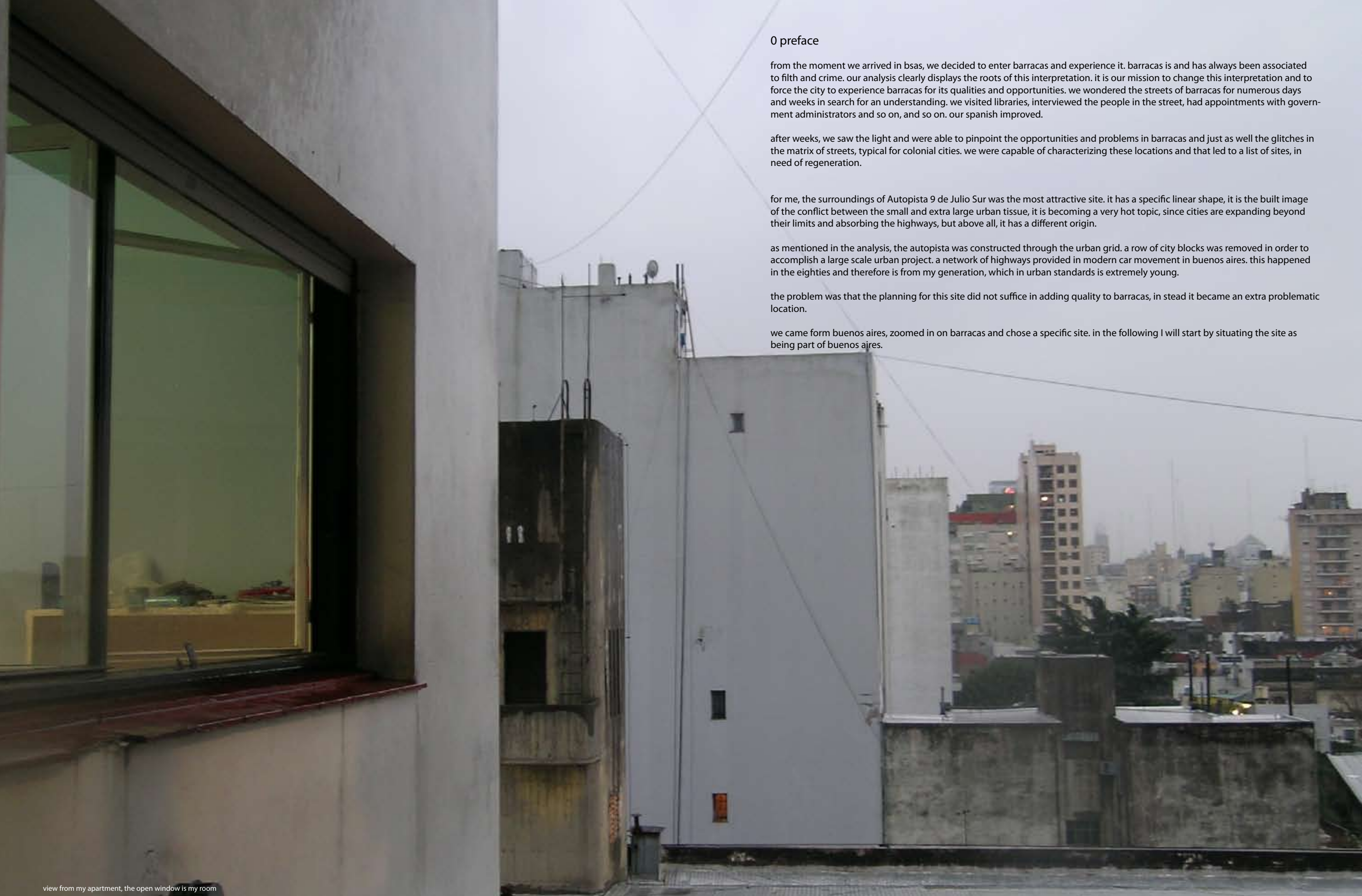
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0 preface

from the moment we arrived in bsas, we decided to enter barracas and experience it. barracas is and has always been associated to filth and crime. our analysis clearly displays the roots of this interpretation. it is our mission to change this interpretation and to force the city to experience barracas for its qualities and opportunities. we wondered the streets of barracas for numerous days and weeks in search for an understanding. we visited libraries, interviewed the people in the street, had appointments with government administrators and so on, and so on. our spanish improved.

after weeks, we saw the light and were able to pinpoint the opportunities and problems in barracas and just as well the glitches in the matrix of streets, typical for colonial cities. we were capable of characterizing these locations and that led to a list of sites, in need of regeneration.

for me, the surroundings of Autopista 9 de Julio Sur was the most attractive site. it has a specific linear shape, it is the built image of the conflict between the small and extra large urban tissue, it is becoming a very hot topic, since cities are expanding beyond their limits and absorbing the highways, but above all, it has a different origin.

as mentioned in the analysis, the autopista was constructed through the urban grid. a row of city blocks was removed in order to accomplish a large scale urban project. a network of highways provided in modern car movement in buenos aires. this happened in the eighties and therefore is from my generation, which in urban standards is extremely young.

the problem was that the planning for this site did not suffice in adding quality to barracas, in stead it became an extra problematic location.

we came form buenos aires, zoomed in on barracas and chose a specific site. in the following I will start by situating the site as being part of buenos aires.

view from my apartment, the open window is my room

1 problem definition

at the end of the seventies, begin of the eighties the highways were constructed through the dens and consolidated urban tissue. the autopista 9 de julio sur was constructed through barracas, connecting onto the existing avenida 9 de julio. except for a small part of its trajectory, the autopista elevates itself above the environment creating large open spaces underneath and around it. the lack of planning caused the degradation of these areas. they become car in pound facility for the local police departement, dumpyard for litter for the people and home to the homeless.

you cannot cut this subject (or any subject) out of its context. therefore it is important to state a problem definition on a larger scale so that the project that will be developed can be fitted into a bigger picture. in this case barracas.

analysis briefly summarized: barracas is and is not part of buenos aires. they have an urban LAT relationship, meaning living apart together. barracas obviously is part of the city, geographically it is imposed within city limits. yet, these limits used to lie far more to the north, aligned with the large height difference between the city centre and barracas. barracas became the garbage can of the city, closeby, but again far away. (it is the ultimate 'haha' - a 'haha' is a small height difference in the landscape dividing two classes of beings, but for the eye, there is no border) the city dumped their railway yards, neuropsychiatric hospitals etc. in barracas.

nowadays, barracas is very attractive for investment since people now seem to realize that barracas is a district with a lot of capabilities. such are: connectivity with the centre (for now poor connection, but it lies close to...), riachuelo as a future turistic focus, identity etc. the redevelopment started in la boca, moved to san telmo (the historic centre of buenos aires) and is now very slowly tending towards barracas.

so, the problem: barracas is ignored and feared.

so, we have a double objective:

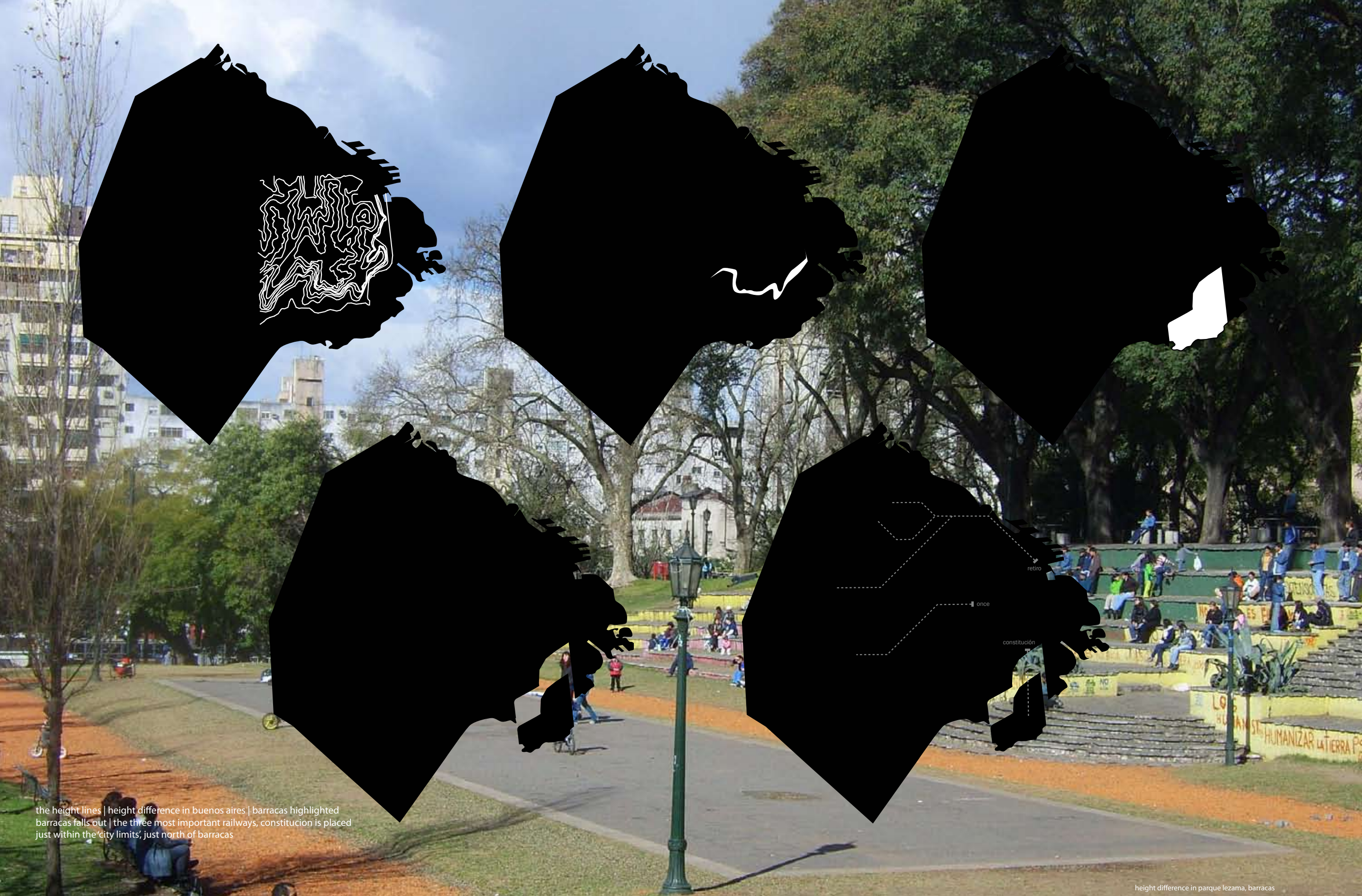
- 1 to give face to barracas, show its potencies, integrate in the metropolis
- 2 to improve the autopista environment



surroundings of autopista 9 de julio sur '40s



surroundings of current autopista 9 de julio sur



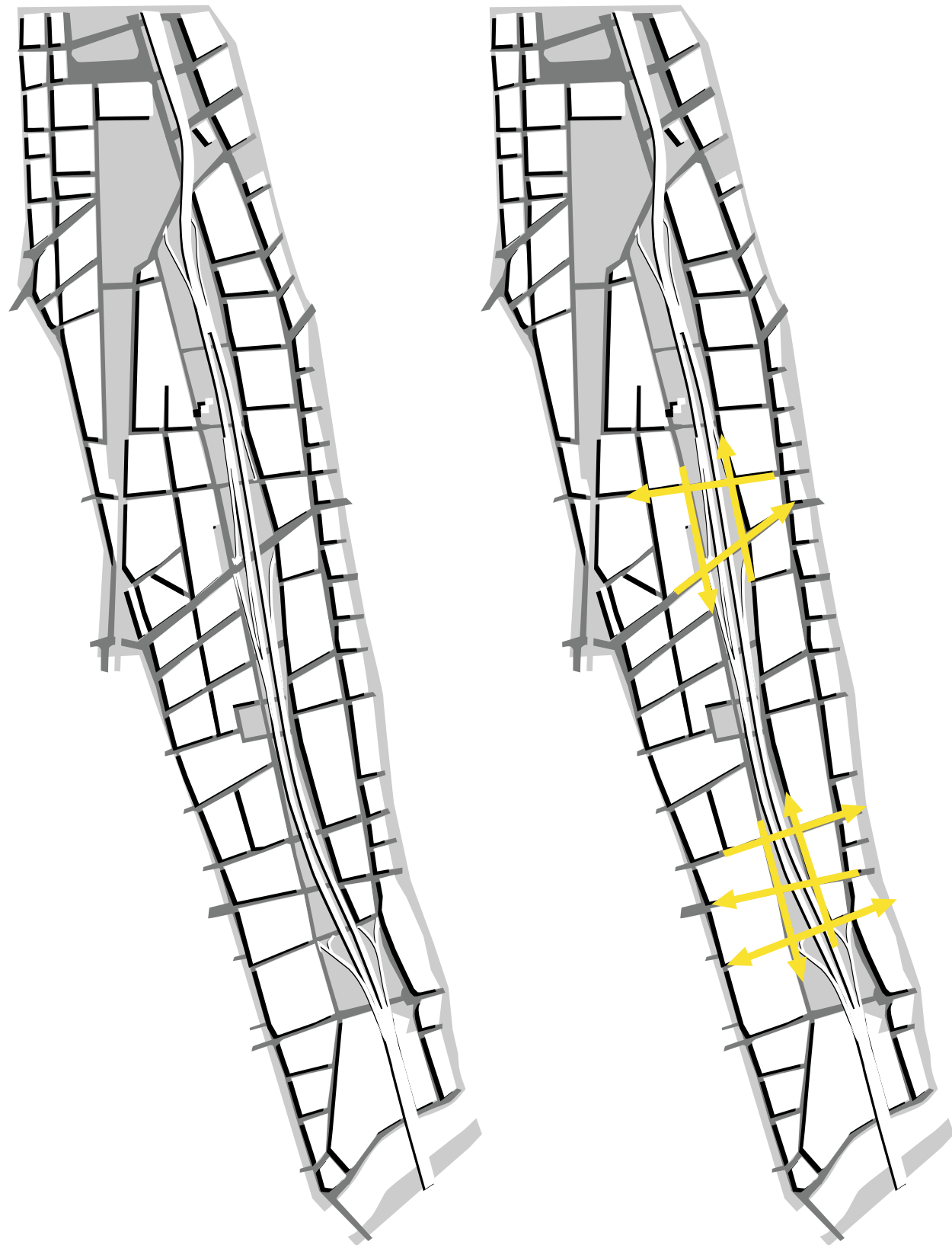
the height lines | height difference in buenos aires | barracas highlighted
barracas falls out | the three most important railways, constitution is placed
just within the 'city limits', just north of barracas

height difference in parque lezama, barracas



2 design proposal

la bombonera, stadium of boca juniors, la boca



2|1 global strategy

we start by analyzing the current road structure. the typical city blocks have been removed for a strange element in the grid. the autopista is an anomaly. even though the city blocks have been removed, the road structure of perpendicular crossroads were conserved. fieldwork pointed out that more than half of these roads are low frequently used, too low.

we have to bear in mind the fact that the autopista is not the only east west obstacle. the ferrocarril del sur is located to the west and is, in a way, a very significant given for the autopista environment as well. the most important roads passing underneath the autopista, are the roads that can also pass underneath the railway.

the road structure in buenos aires is typical colonial: perpendicular one way roads and a second grid of larger scale which allows two way traffic. because of this, it is obvious that we need pairs of roads underneath the autopista. one for every direction.

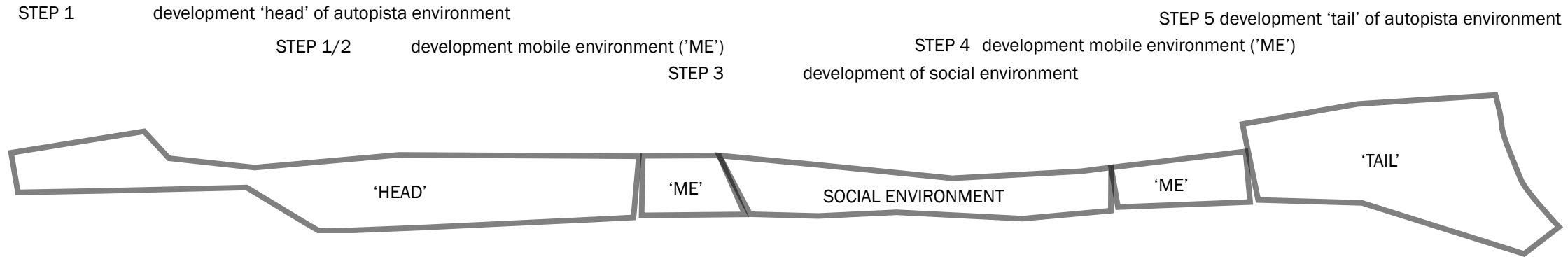
we have two sets of pair roads strategically situated on the trajectory of the autopista. with the adjacent streets they form two very big roundabouts. together with the entrances and exits of the autopista, which connect onto the same roundabouts, these areas can be seen as area of major connectivity and mobility.

these 'mobile environments' seperate three zones on the trajectory of the autopista, with the mobile environments that makes five zones:

- 1 head
- 2 mobile environment
- 3 social environment
- 4 mobile environment
- 5 tail



TIME



HEAD

this zone connects with the city centre, it is the first element in continuation of the centre into barracas and therefore, is practically the most important zone. because of its location, close to the city, it is first in line for redevelopment.

TAIL

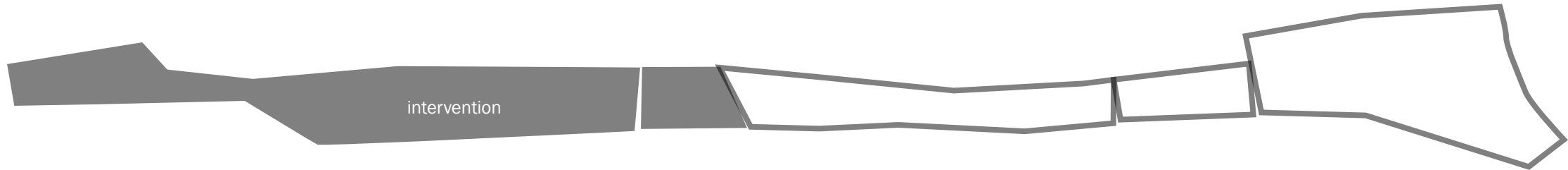
the zone close to the riachuelo and in time it could function as the riachuelo zone in la boca. this zone is also the zone where the autopista enters the capital federal, it is the gate to the city. since the riachuelo is to be sanitized by 2020, a project for this environment is of longer term than the other areas.

ME

the mobile environments have different character but the way they function is based on traffic control. the ME closest to the centre will function purely as a traffic point, as an enhanced mobility point which lead to all directions. the southern ME will contain functions related to traffic such as a big parking tower for cars entering buenos aires. this can work in relation to a bus transferium and subway node in the future.

SOCIAL

this area underneath the autopista, the physically smallest zone, is situated nearest to the majority of housing in barracas and will therefore function as an environment for the people. this means space for squares, sportsfields etc. it will be the the zone that regulates social interaction.



since the autopista is a rather large distance to design, we take out the head part and the mobile environment because they will be redeveloped first, this will be the zone of intervention.

DESIGN ELEMENTS

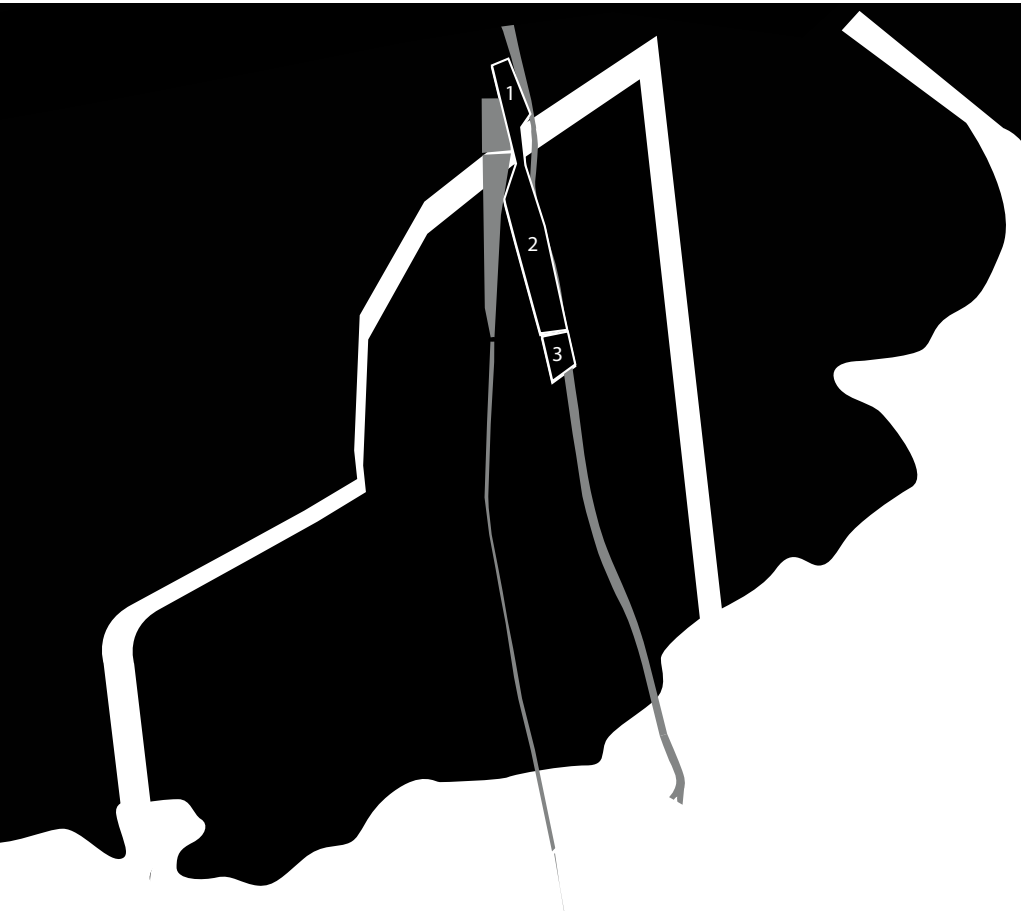
the zone of intervention functions as a stitch between barracas and the city centre. the zone is pinched in between two XL elements, the autopista and the railway.

the design contains 3 major parts, situated on the zone of intervention:

- 1 "janushead" transferium
- 2 parque barracas
- 3 international tango dance center

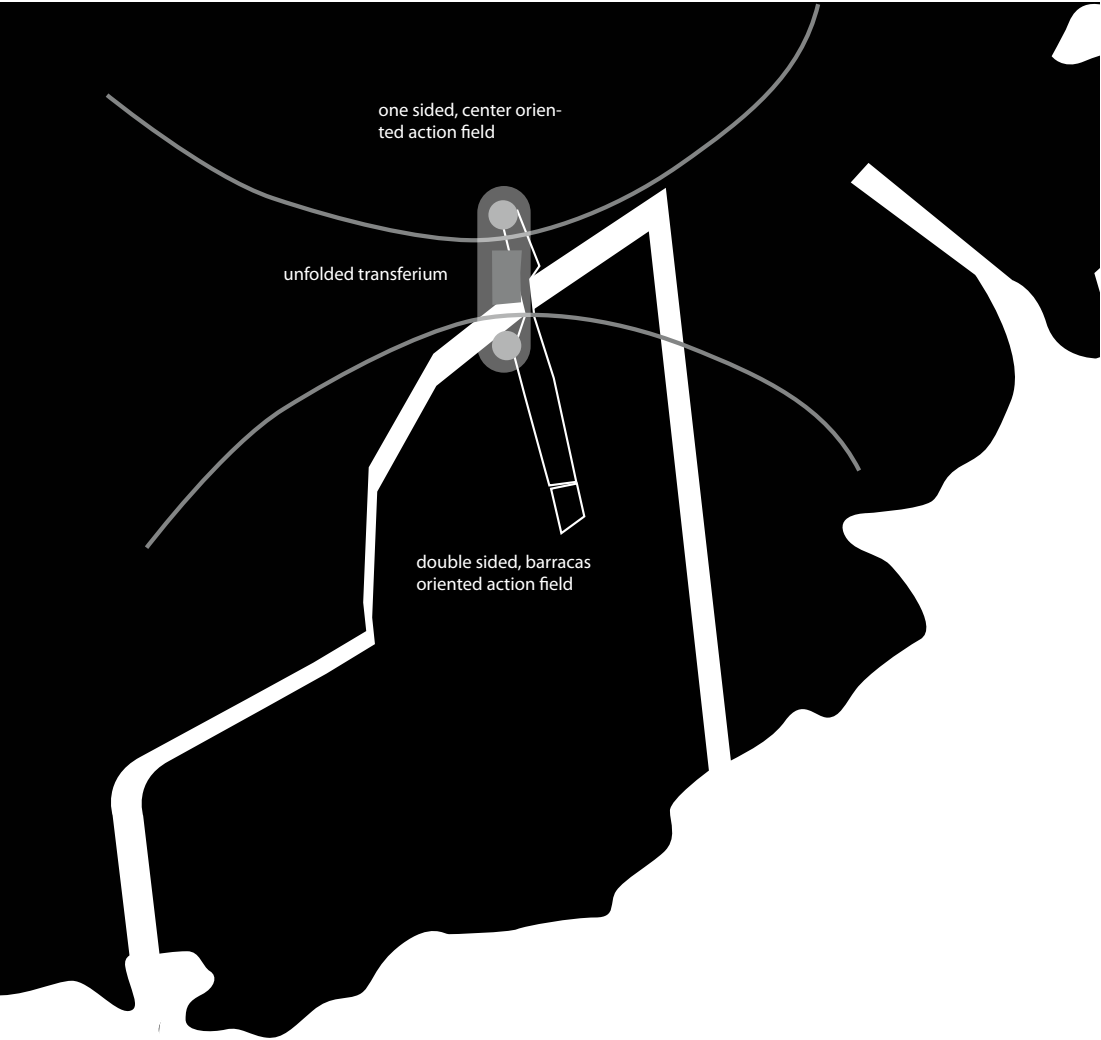
IMPORTANT:

these three elements are three methods to undo barracas of its LAT relation, all in their way try to stitch barracas onto the center.



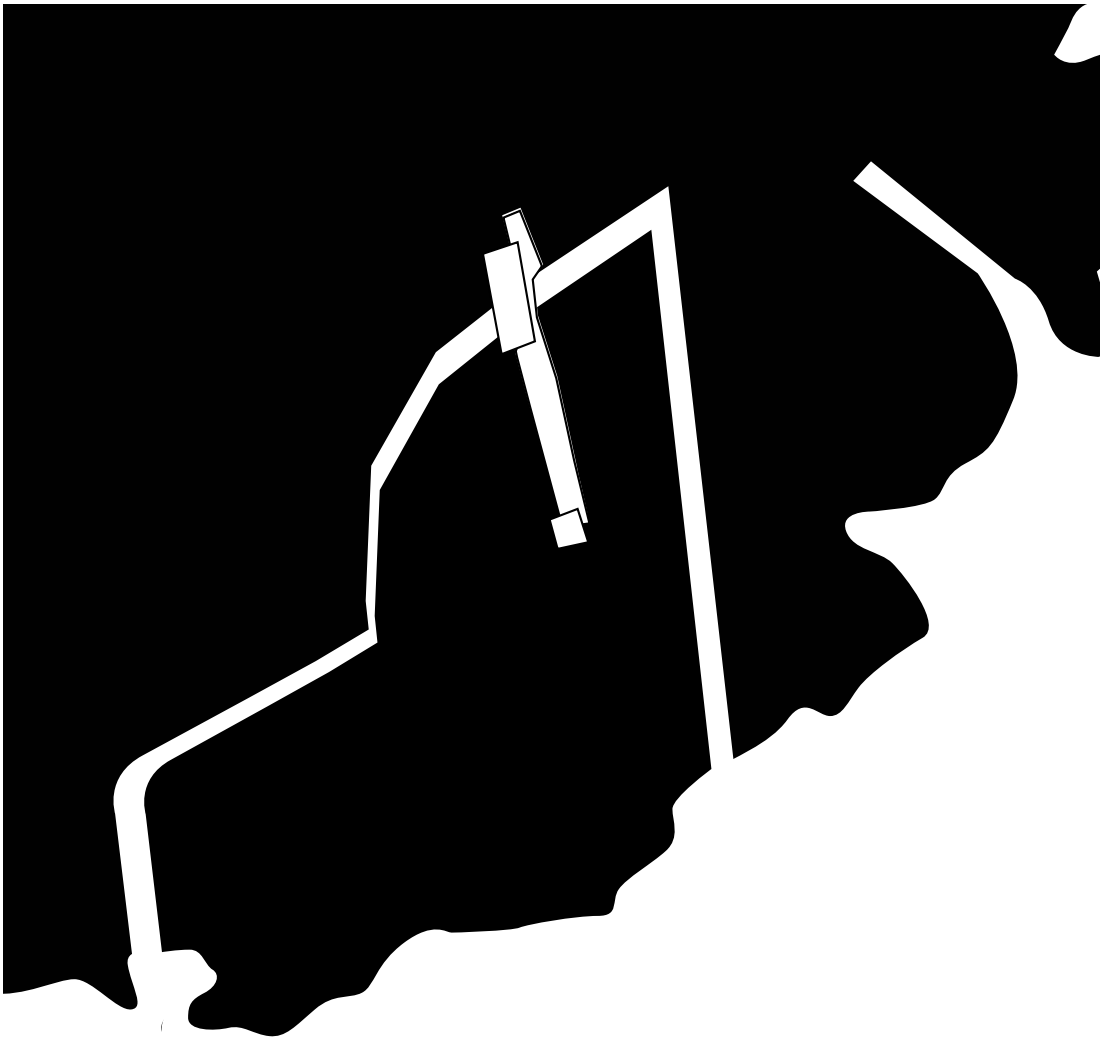
ELEMENT 1 "janushead"

the existing transfer center constitution which contains a subway station, a busstation and the train-station will be unfolded towards barracas. it will be given a second face (hence "janushead" the head with two faces) to integrate and implement mobility into barracas. in stead of the one sided directivity, it has double directivity.



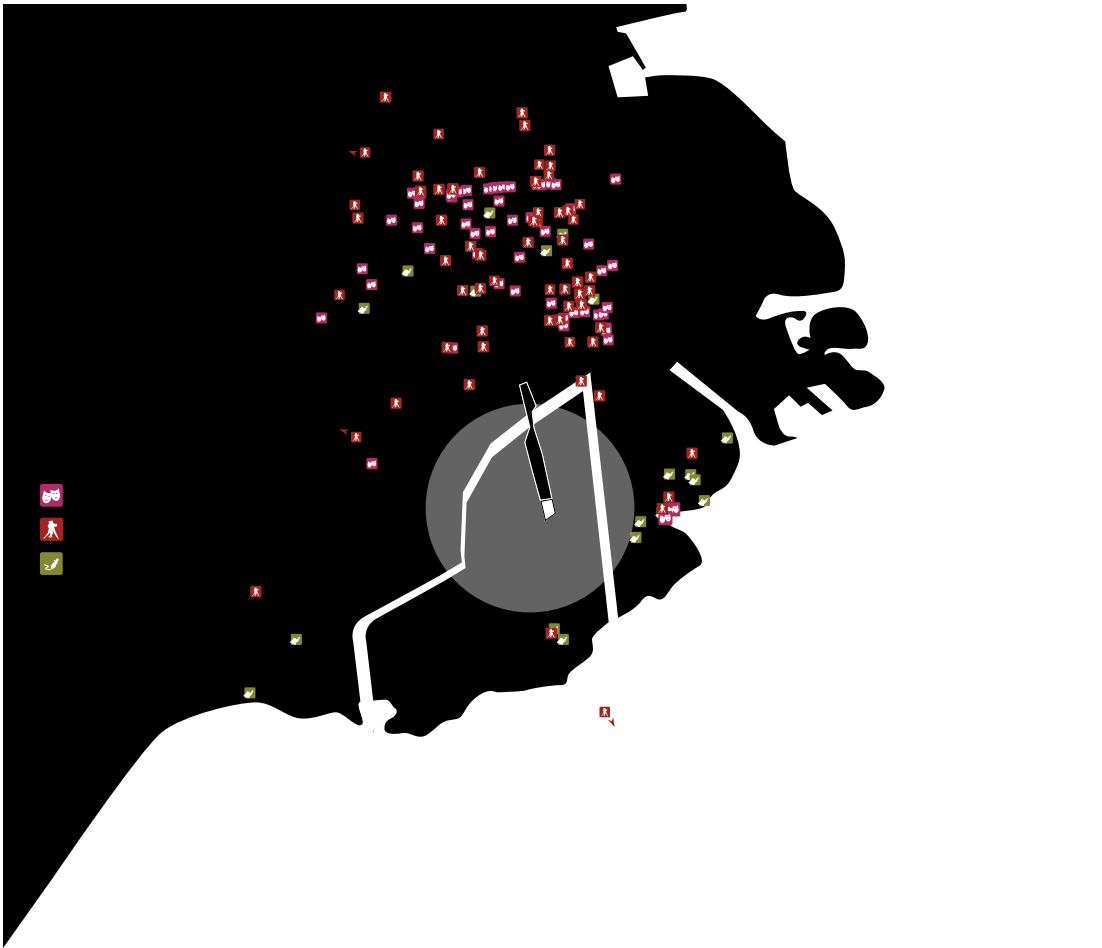
ELEMENT 2 parque barracas

the park is the connector between the dance center, the pivot. it is de decompression zone for the dens and consolidated urban environment. it also works as a connector, physical connector between the center and barracas. this function is what the city's pua "developed". (the brackets mean that this idea from the city is not as wellthought as you may think. it was coloured in as park area since it was the easy road)



ELEMENT 3 international tango dance center

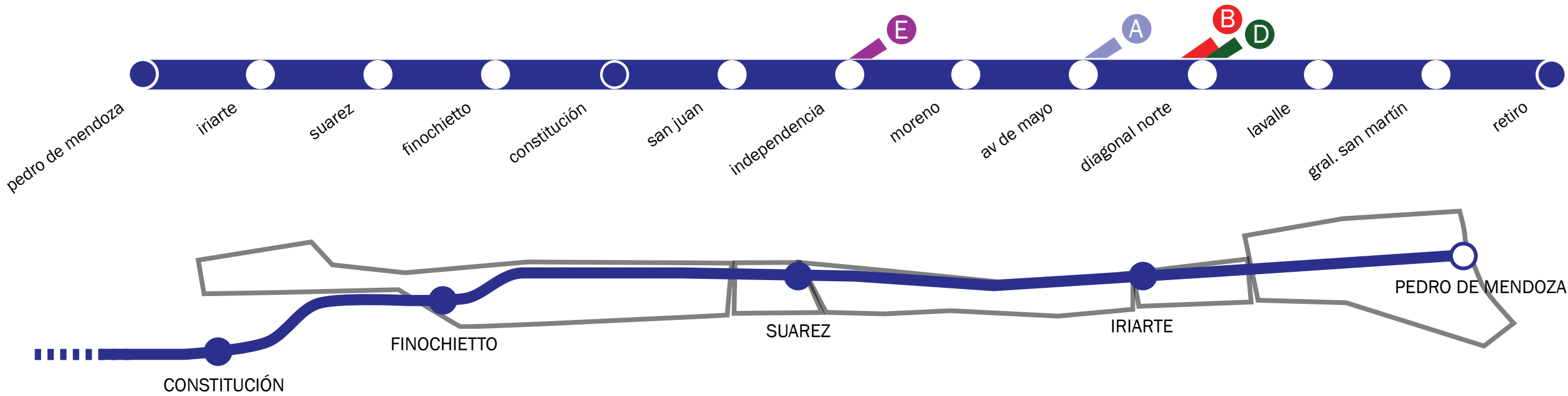
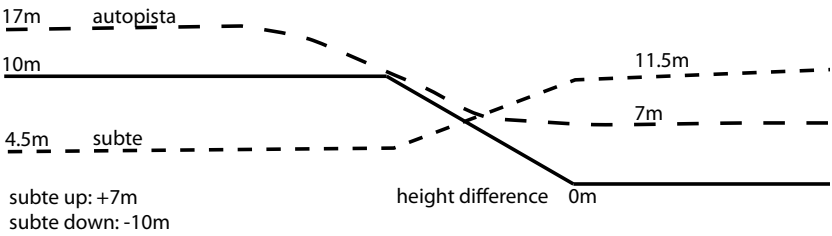
the third input is a programmatic input. a study clearly shows the lack of cultural balance in buenos aires. a tango dance center with a little museum fills up a gap, creating a cultural platform in barracas. it puts barracas on the map, especially because it works on a city scale. the dance center will be situated above the mobility focus. it functions as an end term of the park.



EXTRA subte

an extra element provides the connection with the center. it is the obvious, but the obvious should be stated as well: the subte (subway of buenos aires) the existing linea "C" that for now runs from retiro in the north of the center to constitution, will be extended all the way down to the riachuelo. this element is interconnected with the other 3 elements (2 subte stations and social control)

an extra issue comes into the picture: a subte (subway) is presumed underground, but since there is a substantial height difference running through barracas, running through the park (10m), the more economic option is to raise up the subte, in stead of running it down along the height difference. this is also more logic if the subte line would ever expand to the provincia (which it will in the future), it can easily cross the riachuelo thanks to the height. the subte line brings movement and life into barracas and acts partially as social control. it is a game of seeing and being seen.



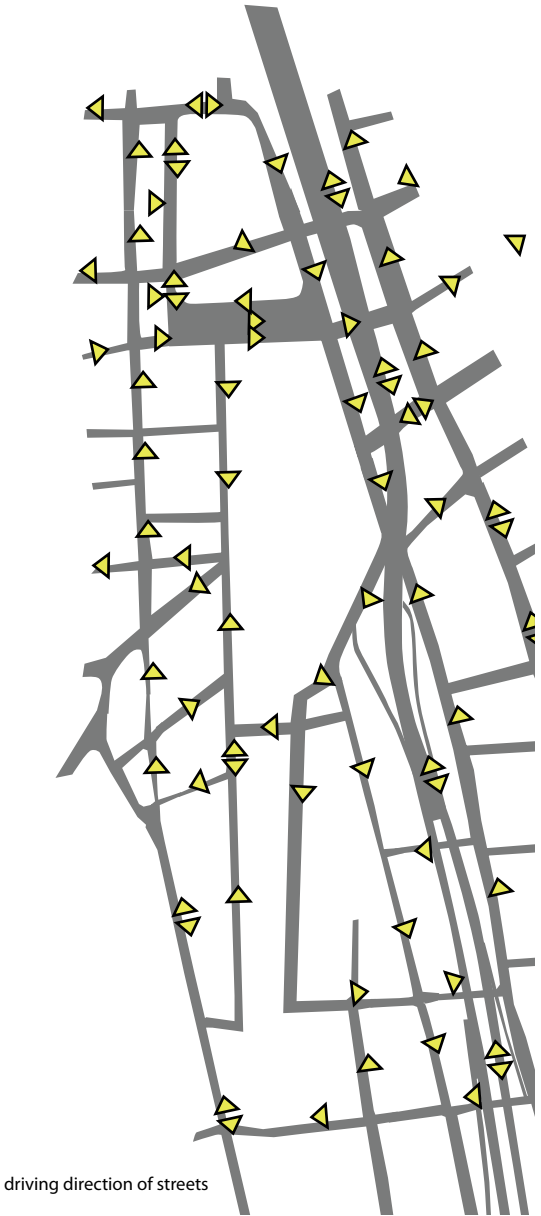
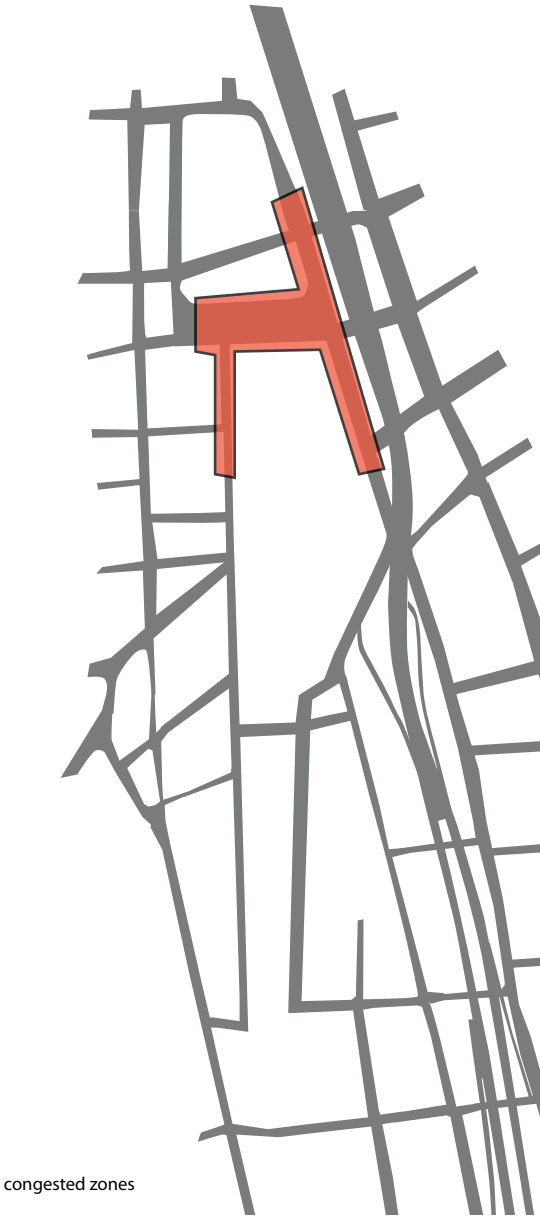
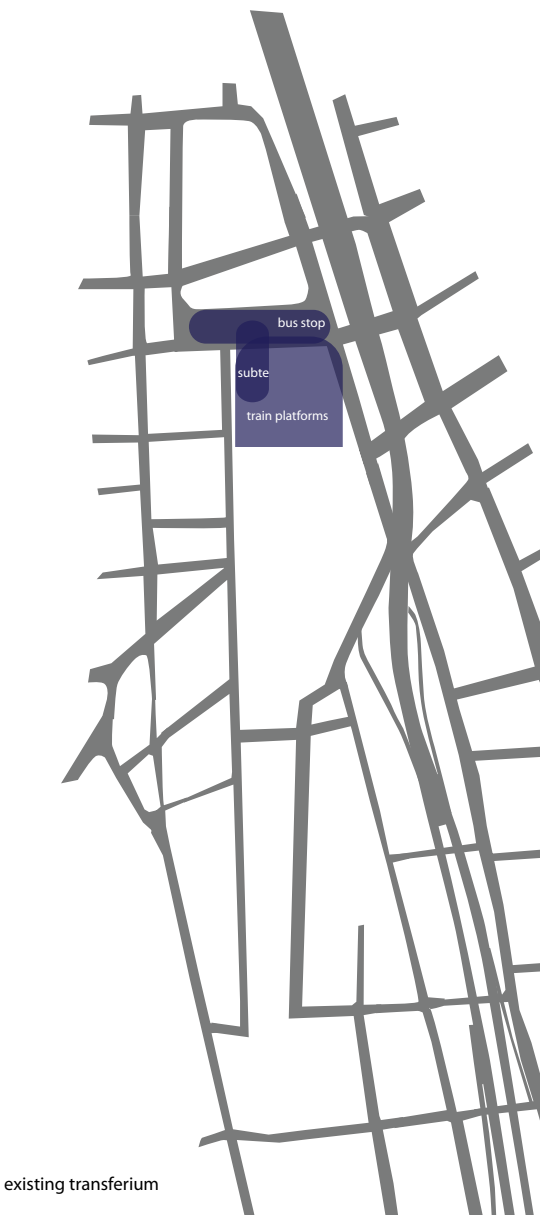


- línea de subte
- - - línea de subte under construction
- línea de subte planned
- línea C proposed expansion

2|2 “janushead”

a thorough investigation of mobility around constitution is required in order to unfold the existing station towards barracas. I analyzed all the different bus lines and where they have their respective stops near constitution. this indicates an area where the buses stop which is three to four times bigger than the designated area, the congestion of the bus station itself included. bus stops means buses stopping, and when they do so in areas where movement is necessary, the roads silt up.

in order to reorganize these different buslines, we must investigate what their trajectory is around constitution. because of the complex system of one way streets, the buses pass wrongly.



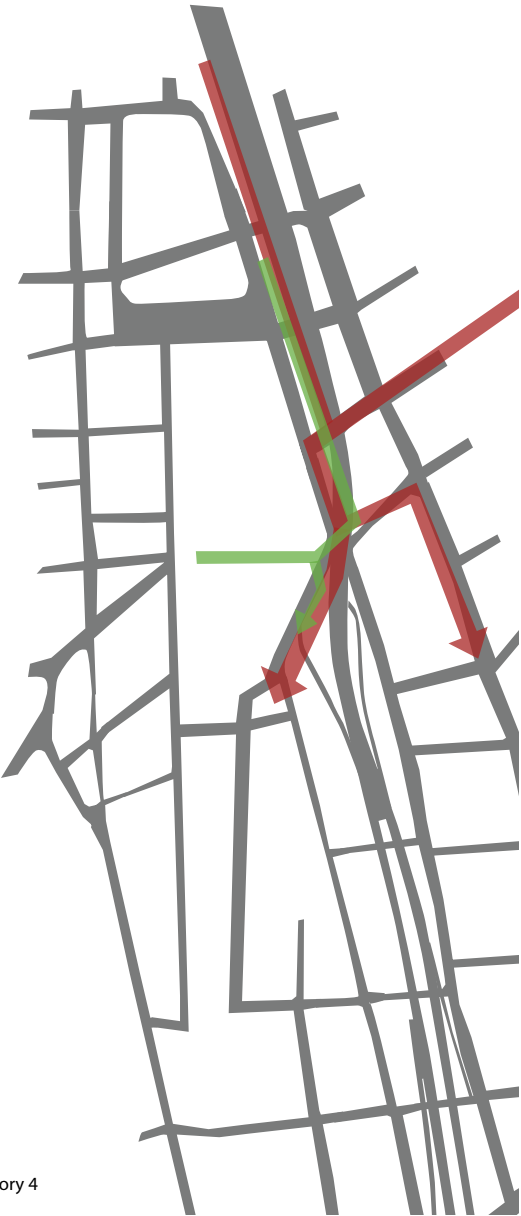
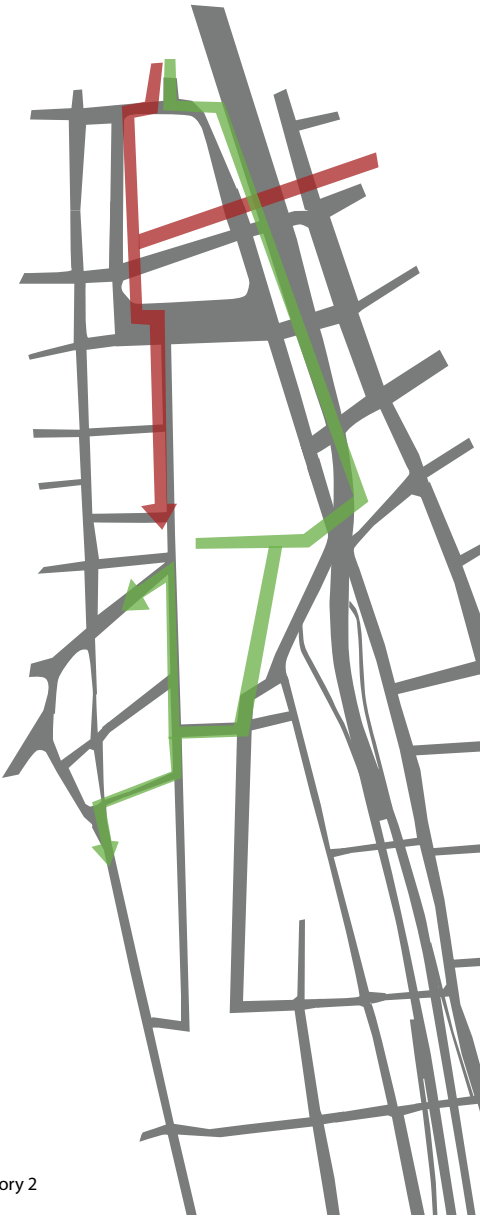
the busses that pass constitution are:

4	9	12	17	28	38	39	45	51	53	59	60
61	62	65	67	79	84	91	96	98	100	102	116
129	133	143	148	151	154	168	186				

when we see how they move around constitution, we can segregate 4 different types of movement. a list is made up to see which busses take which trajectory. we can see that one of those trajectory happens reasonably, the other can be redirected to a bus-station on the barracas side. a busstation that hovers above the tracks so that the new busstation has exactly the same qualities. if you look at trajectory 2, it is not immediately visible that the situation has improved because it looks like they have to travel further, but they stop on a place designed to stop, and the difference in distance is perfectly acceptable.

the red trajectories are the old, failing trajectories, the green the correct, clean, new trajectories. After the reorganization, half of the trajectories are moved to the second transferium, so the trajectories are divided equally and therefore perfectly.

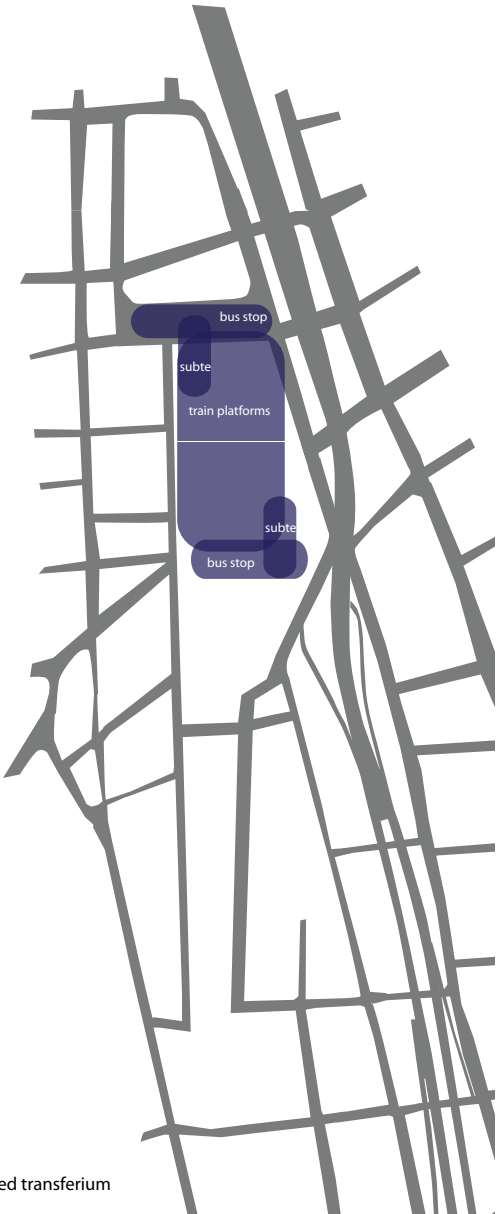
busline	Ida	vuelta	Linea 79	traject sp	traject 2
Linea 4	traject 1	/	Linea 84	traject 1*	traject 1
Linea 9	traject 1	traject 2	Linea 91	traject 1	traject 2
Linea 12	traject 3	traject 1	Linea 95	traject sp	traject sp
Linea 17	traject 3	traject 4	Linea 96	traject 1	/
Linea 28	traject 1	traject 2	Linea 98	traject 3	traject 1
Linea 38	traject 3	traject 1	Linea 100	traject 1	traject 2
Linea 39	traject 1*	traject 1	Linea 102	traject 3	traject 1
Linea 45	traject 1	/	Linea 116	traject 3	traject 1
Linea 51	traject 3	/	Linea 129	traject 1	traject 3
Linea 53	traject 3	traject 1	Linea 133	traject 1	/
Linea 59	traject 2	traject 1	Linea 134	traject sp	traject sp
Linea 60	traject 1*	traject 1	Linea 143	traject 1	traject 3
Linea 61	traject 1	/	Linea 148	traject 3	traject 4
Linea 62	traject 1	/	Linea 151	traject 1	/
Linea 65	traject 1	traject 3	Linea 154	traject 3	traject 1
Linea 67	traject sp	traject 2	Linea 168	traject 3	traject 1
			Linea 186	traject 3	traject 1



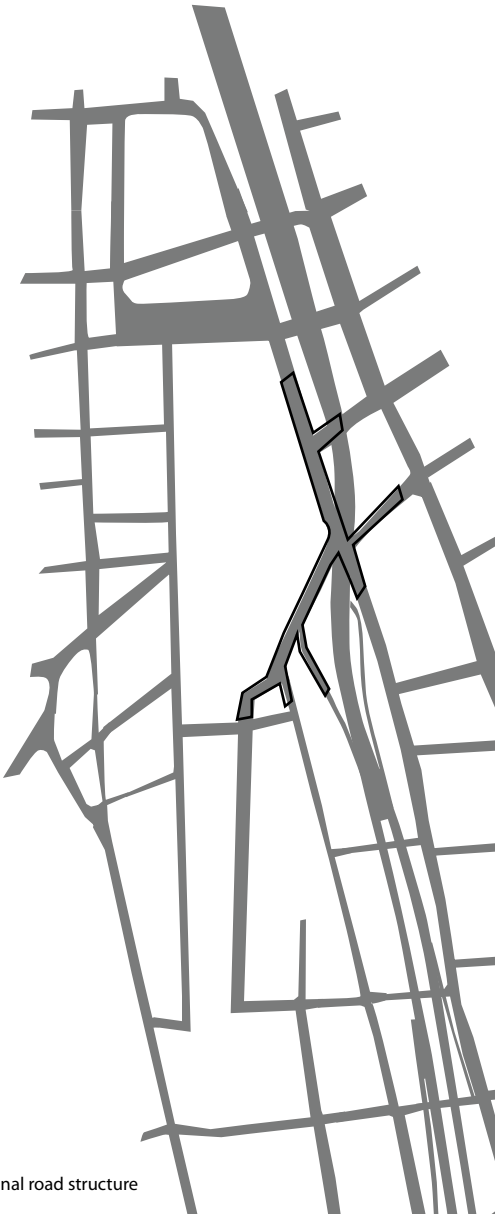
everything of constitution will be unfolded and undoubled. so there will be two bus stations, two subway stations and in between the linear movement of the trains. so there will be two transferia working exactly the same way.

the original road structure can also be altered to create a better living environment around the transferia, being the park.

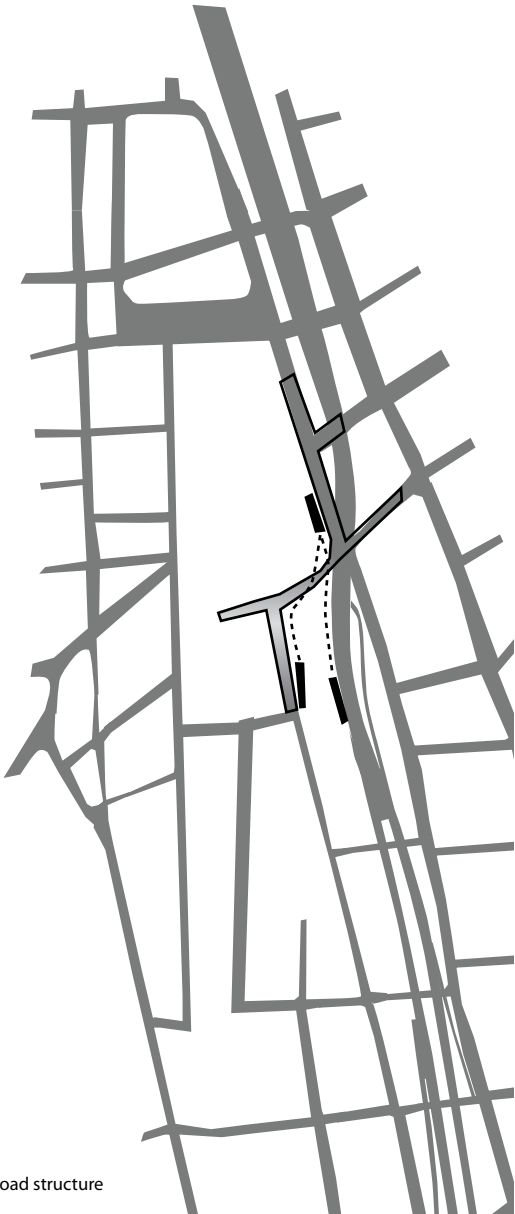
the busses drive upwards to the bus platform, and the other cars en trucks go down. by doing that, you can make the ground level, the park really pure.



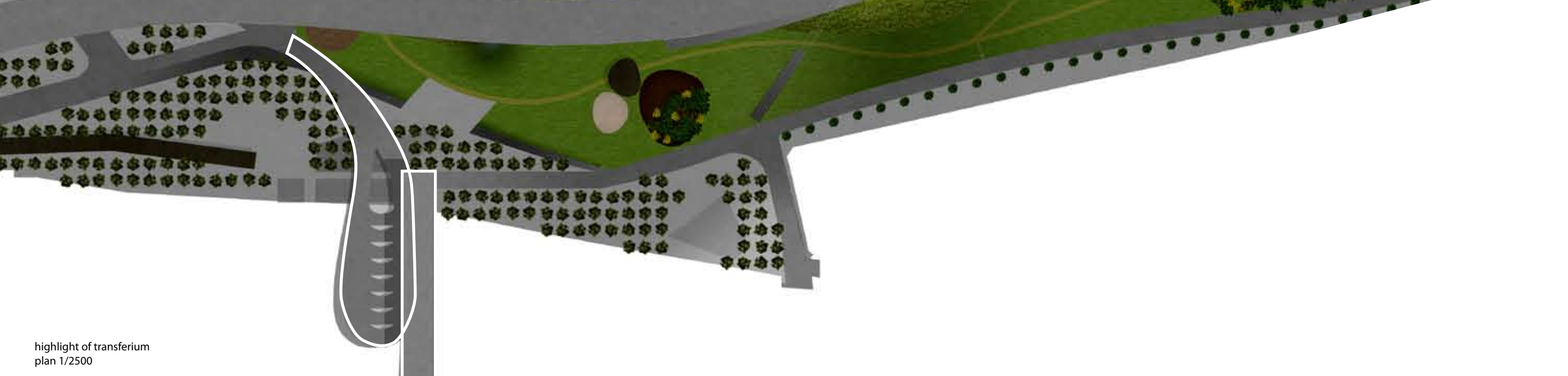
unfolded transferium



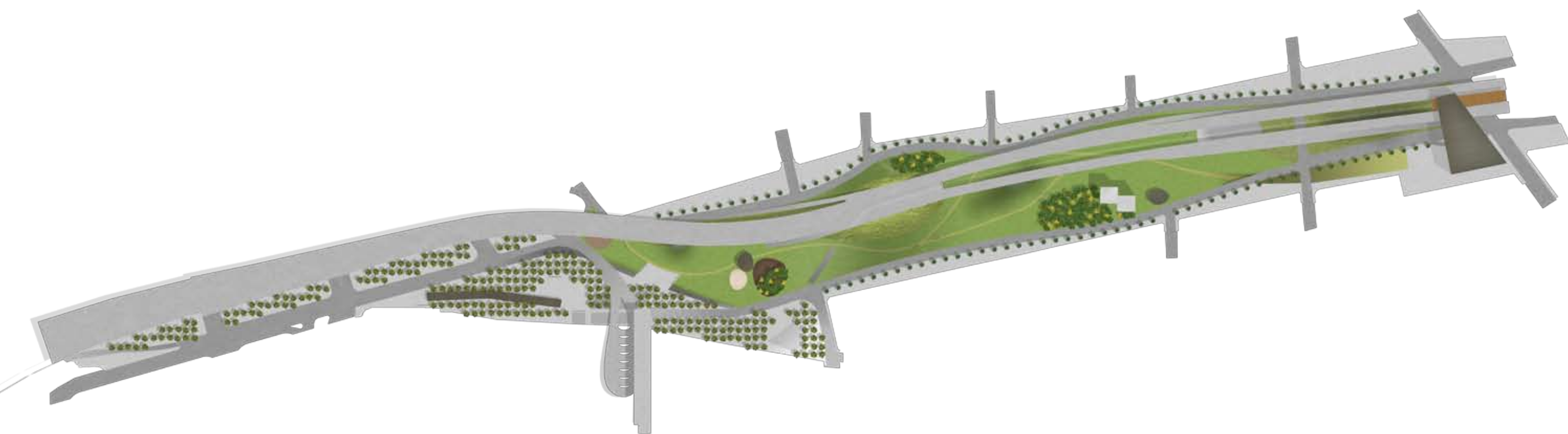
original road structure



design road structure



highlight of transferium
plan 1/2500

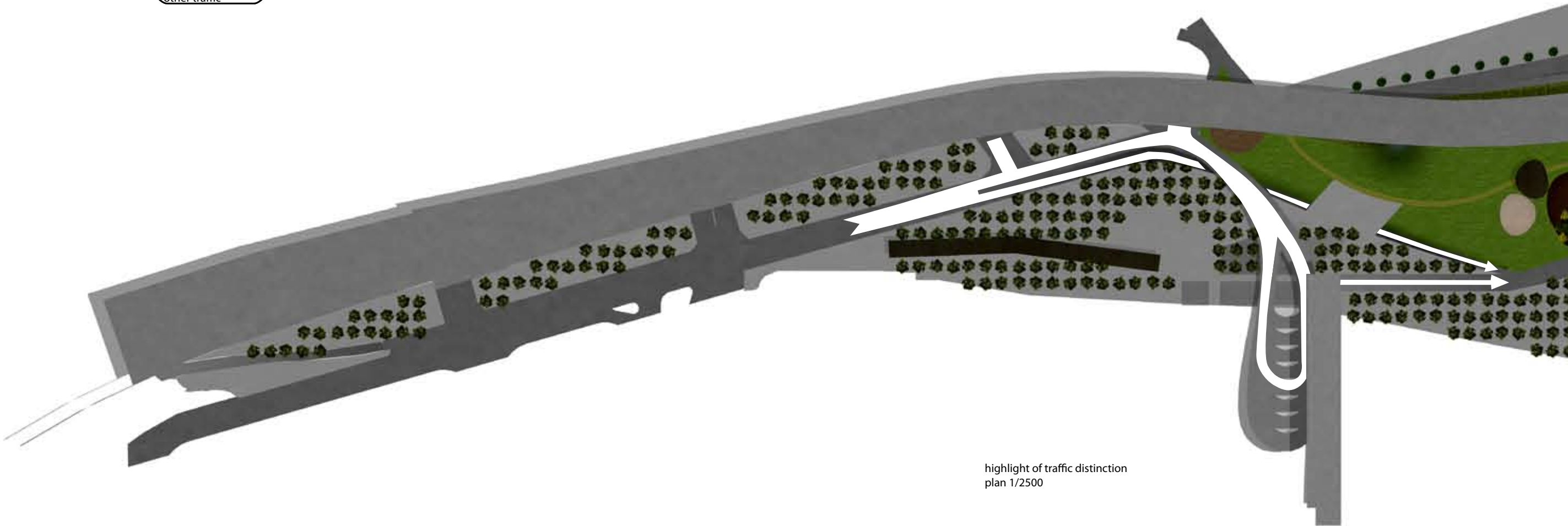
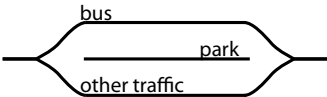


general plan of total intervention
plan 1/5000

everything of constitution will be unfolded and undoubled. so there will be two bus stations, two subway stations and in between the linear movement of the trains. so there will be two transferia working exactly the same way.

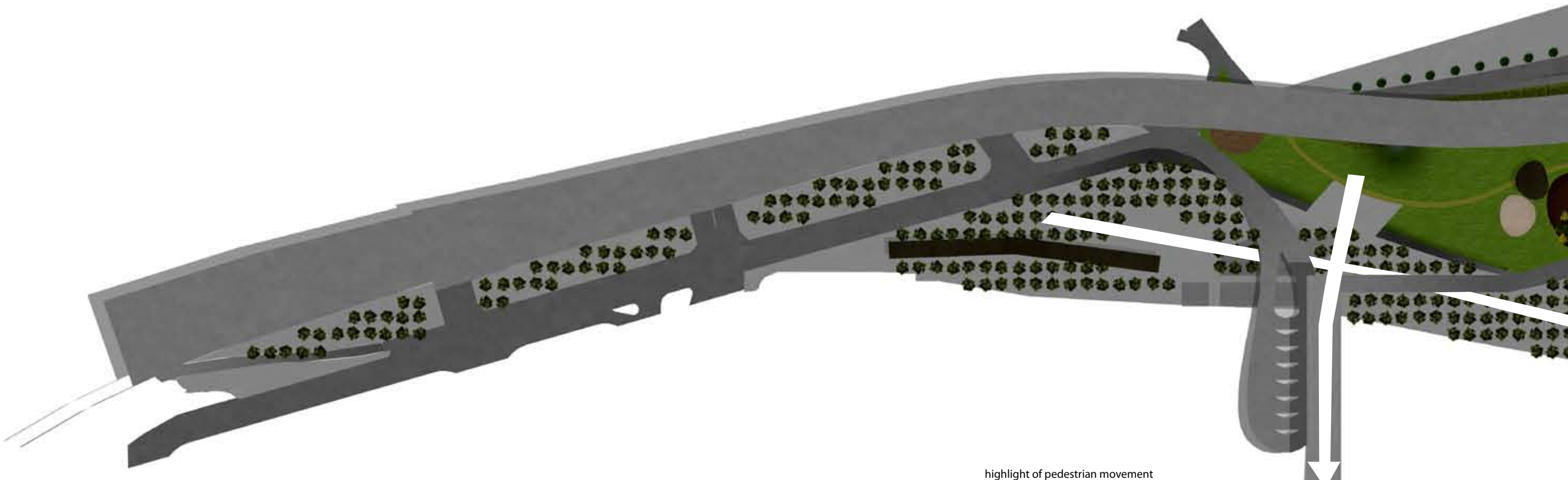
the original road structure can also be altered to create a better living environment around the transferia, being the park.

the busses drive upwards to the bus platform, and the other cars en trucks go down. by doing that, you can make the ground level, the park really pure.



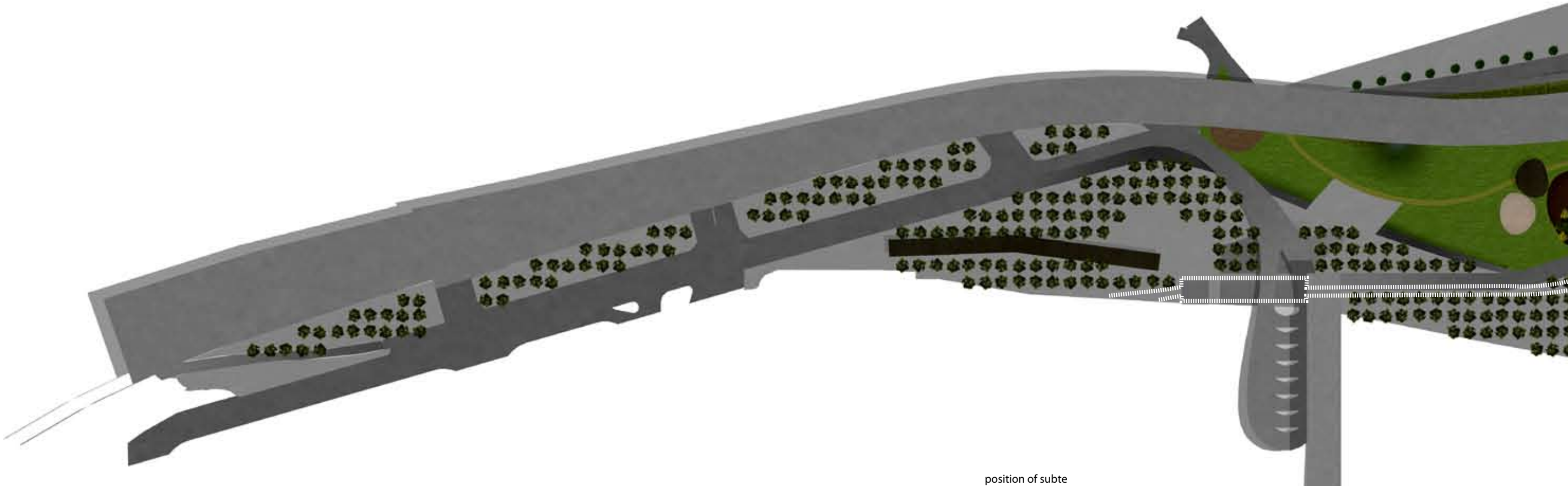
highlight of traffic distinction
plan 1/2500

the pedestrians have the possibility to freely walk about around the transferium and can connect to whatever transport mean. there is also an important connection to the other side of barracas. this circulation is also used for the busplatform and the train platforms.

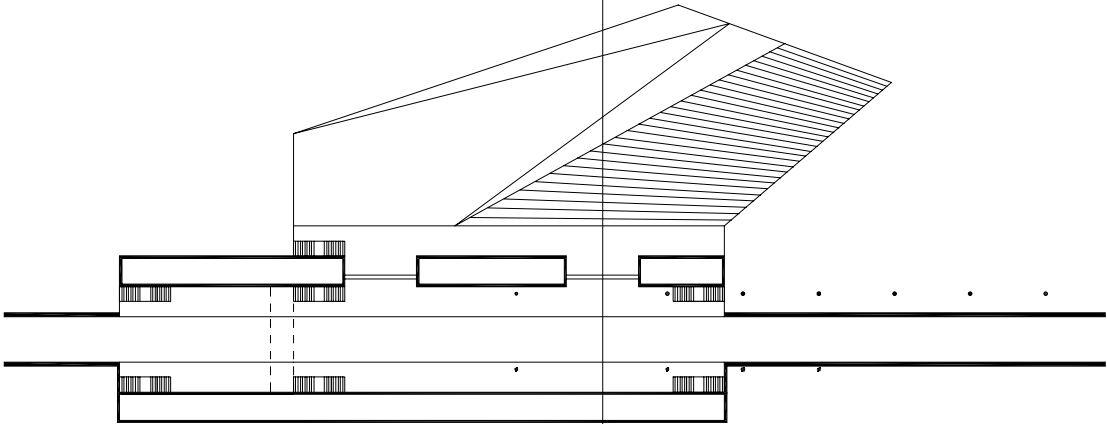


highlight of pedestrian movement
plan 1/2500

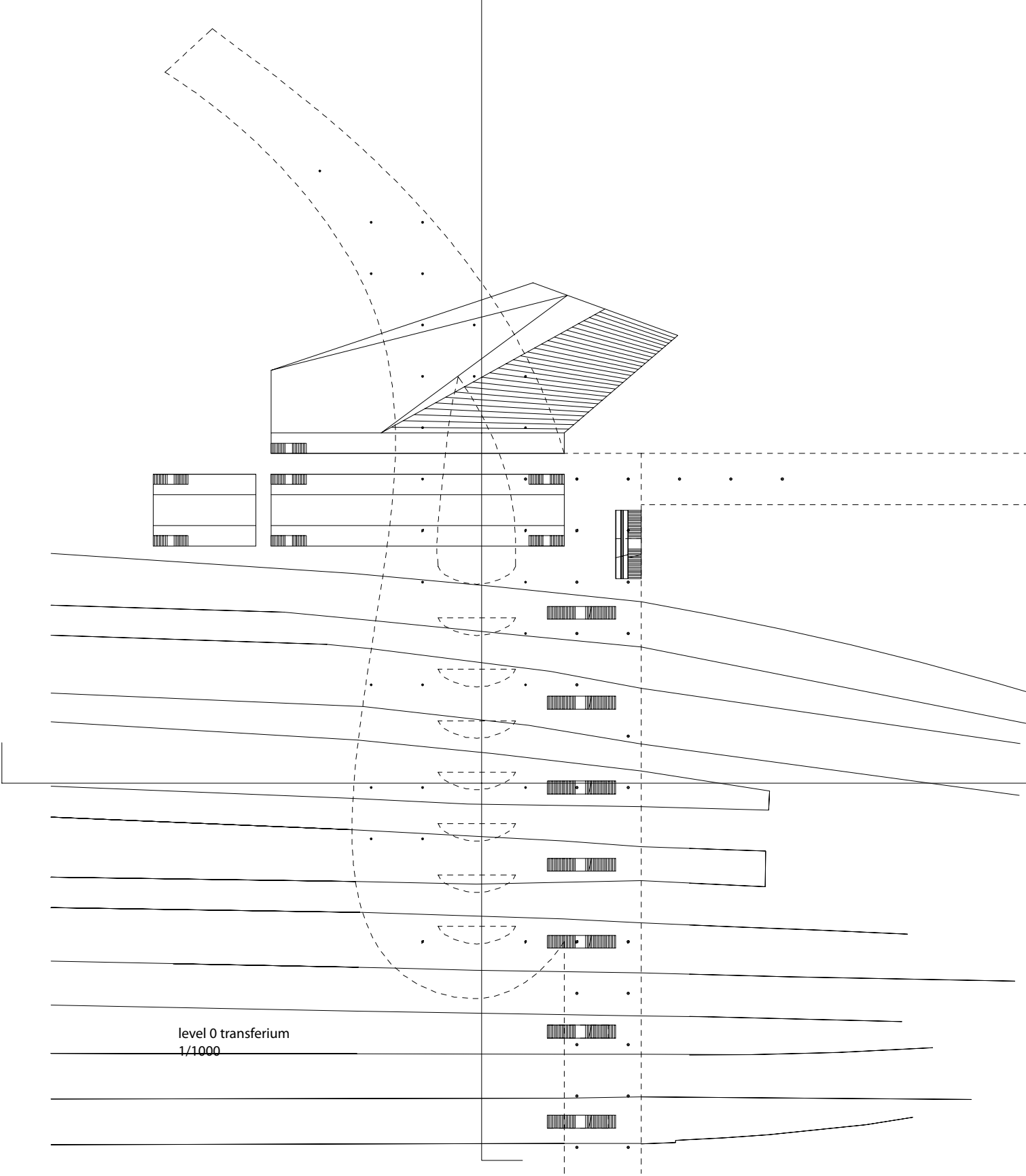
the subte connects with the other means of transport. the station is a hole in the environment and a slope leads to it, you walk from the park into the subte station.



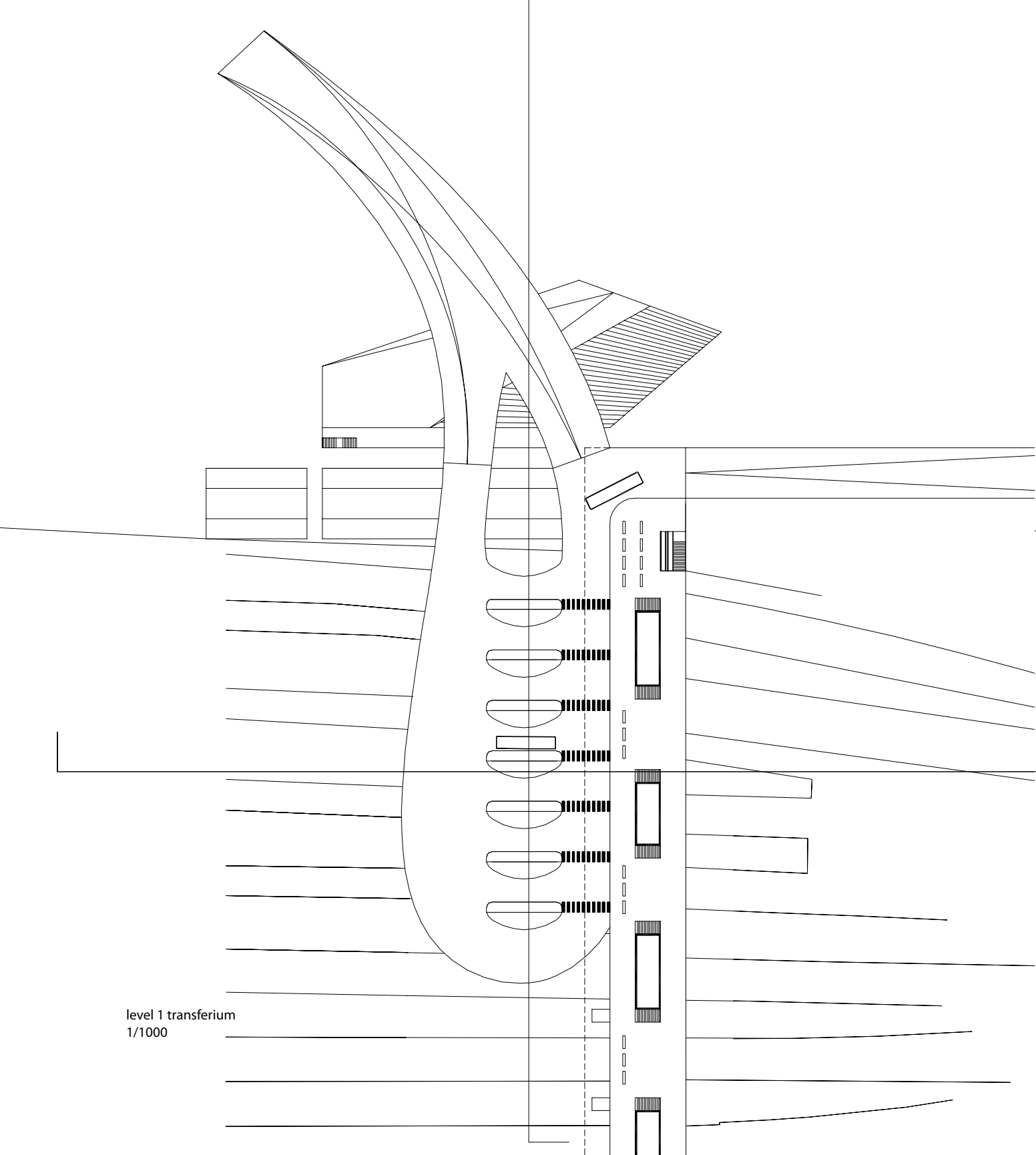
position of subte
plan 1/2500



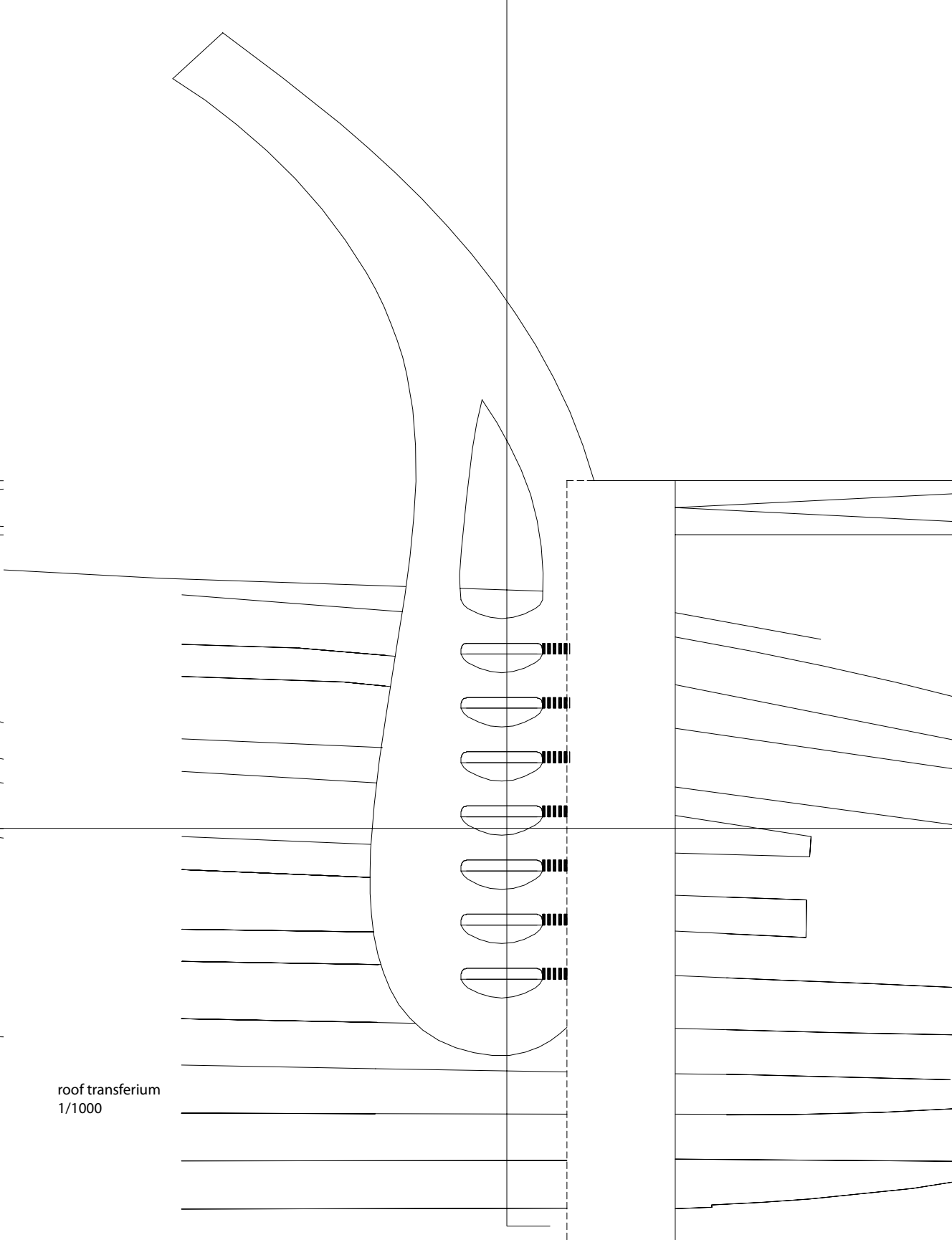
level -1 transferium
1/1000



level 0 transferium
1/1000



level 1 transferium
1/1000

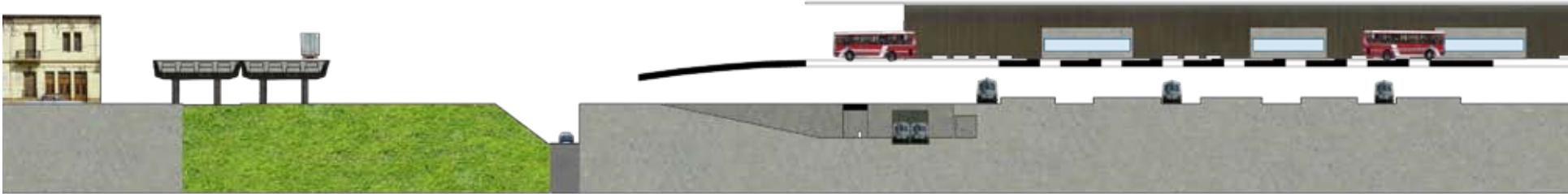


roof transferium
1/1000

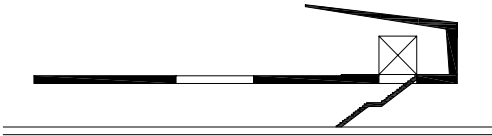
cuts through transferium

cut 1 shows a cut linear to the transferium. it also cuts through the park, you can read the different height differences and slopes.

the second cut shows the way the transferium connects with the train platforms. when you walk up from the train platforms, barracas opens up for you and you have a viaw over barracas.



cut 1 transferium
1/1000



cut 2 transferium
1/1000



transferium: connection between bus and train

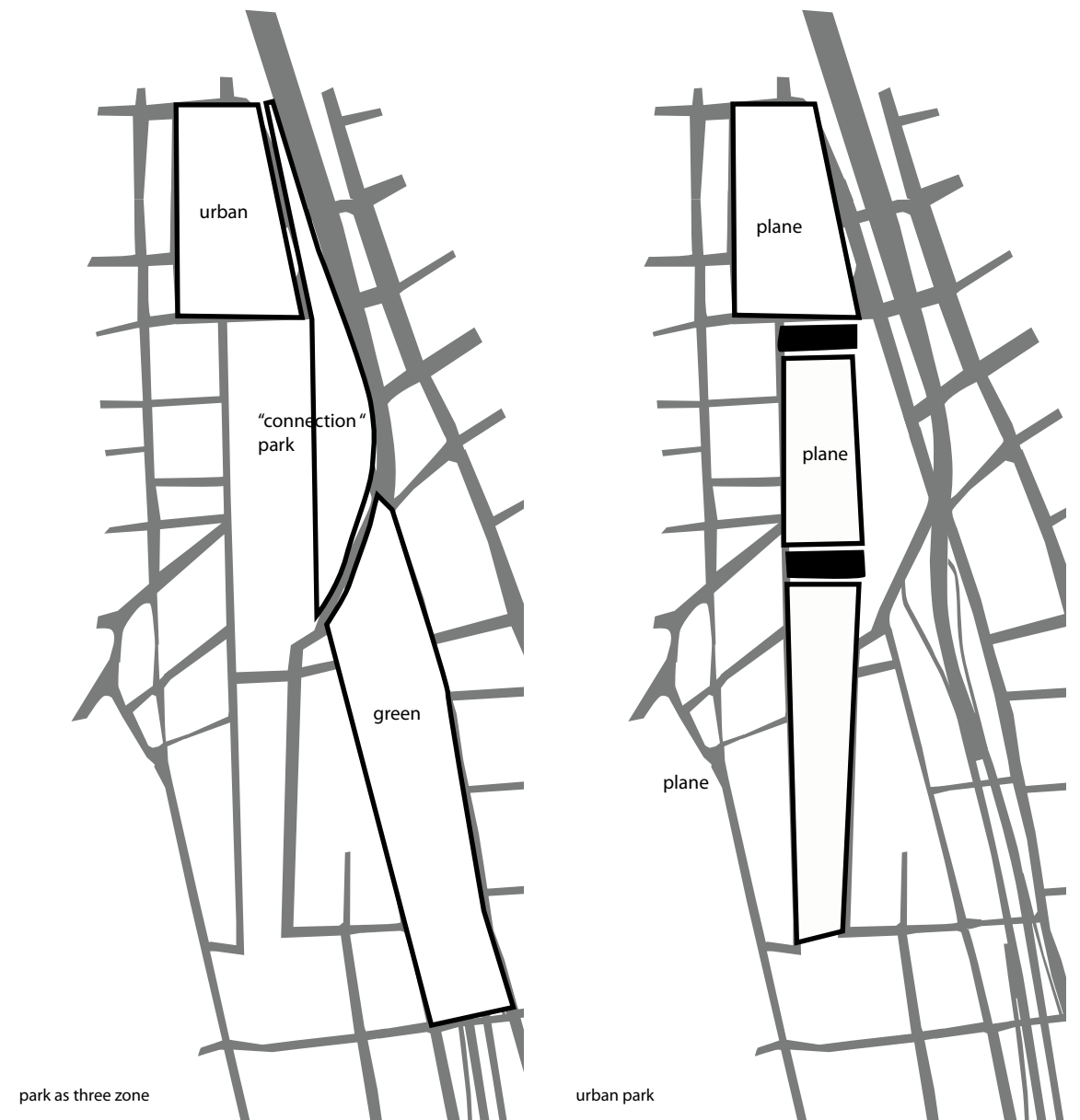
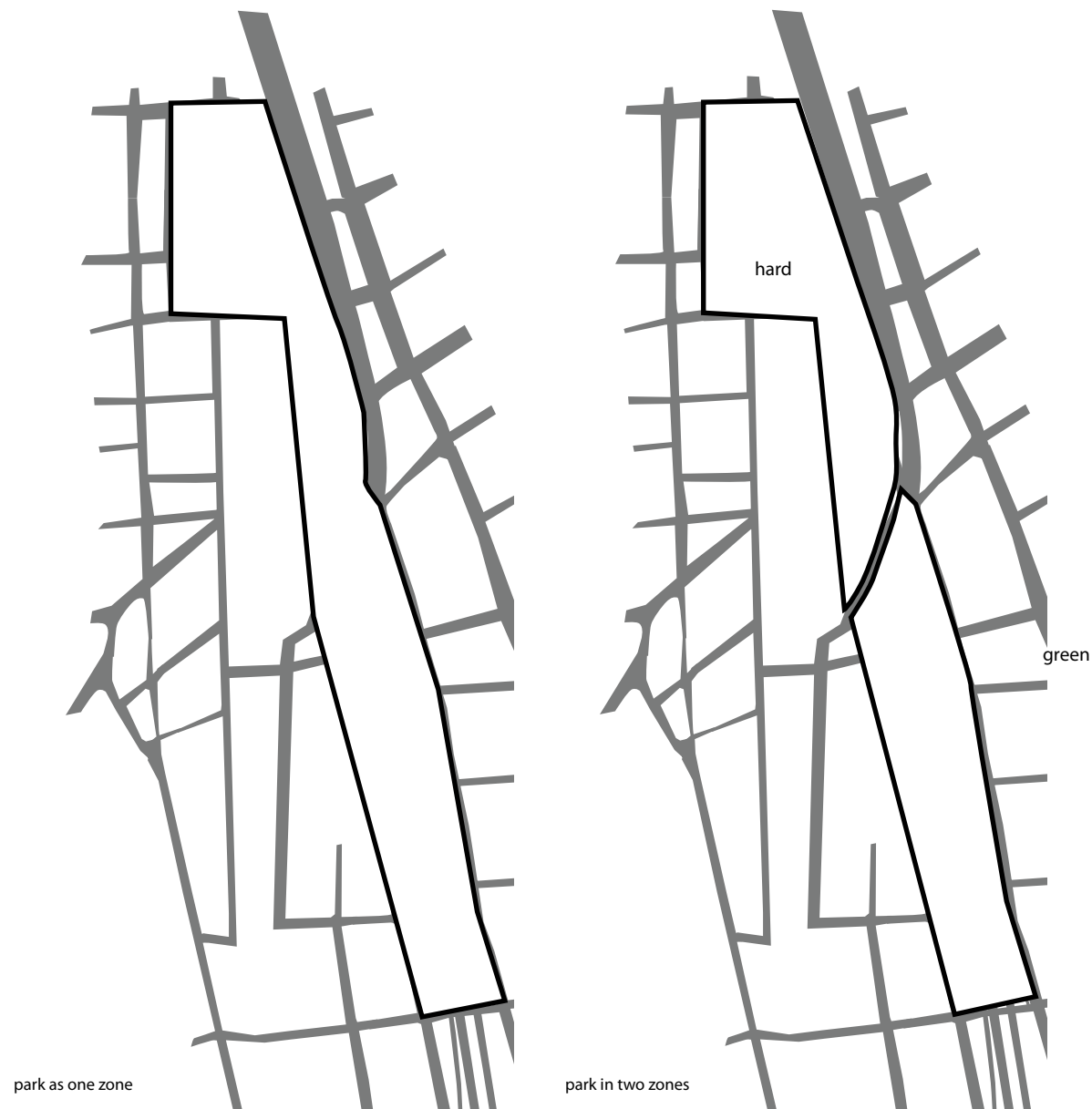


transferium: connection between bus and subte



as mentioned above, the circulation of traffic divides itself over two levels so that the park could become one zone instead of two or three separated zones. nevertheless, there is a nuance in the type of the park. the tunnel of the non-bus traffic divides the park in two zones, which have altogether different characteristics. when you have a closer look, there is yet another division to be made. the square of constitution in front of the building is part of a sequence of plane-transferium-plane-transferium-plane.

the materiality is different for both parts. the green part I will discuss later, and the other will become a mineral park, because it is more urban and is influenced by a lot of different things. it must be strong and therefore the mineral choice. to give it its own identity between such strong elements (autopista, railway, transferium...) there is also a grid of trees of 15 by 15. the tree is the fresno americana, the tree most frequently used in buenos aires



the green part of the park can be seen as a green oasis, left behind by a stormy river. it is an analogy but relevant. the original idea (and was kept) was to stretch the park till it touches the facades of the buildings making sure that anyone who arrives from a side road immediately has the feeling of being inside the park, of being part of... the side roads become parkways and meander through the oasis. the leftovers form the banks of the oasis. these banks are part of the park but are given to the people for cultivation. these banks can become locations for ‘un asado’ or for drinks or for other purposes. There is a linear treeline that runs with the road. These trees have been chosen for the people: ficus benjamina. it is the only tree that has not been planted by the city itself en therefore the tree embodies perfectly what the banks are for.

The core of the park is based upon the dynamics of an english landscape park. this type of park excels in simplicity. it consists of high parts and low parts which form an interesting environment. there are different types of areas. the main soil will be short grass, but at some places, the short grass has not been cultivated and longer grass is present, like riverbanks with sheer.

there are three lower parts which are used as waterbuffer for the water that is captured by the autopista. the water will be released gradually after storm wheater. these are the little pools left behind when the river passed and created the oasis and now still, they fertilize the park constantly.

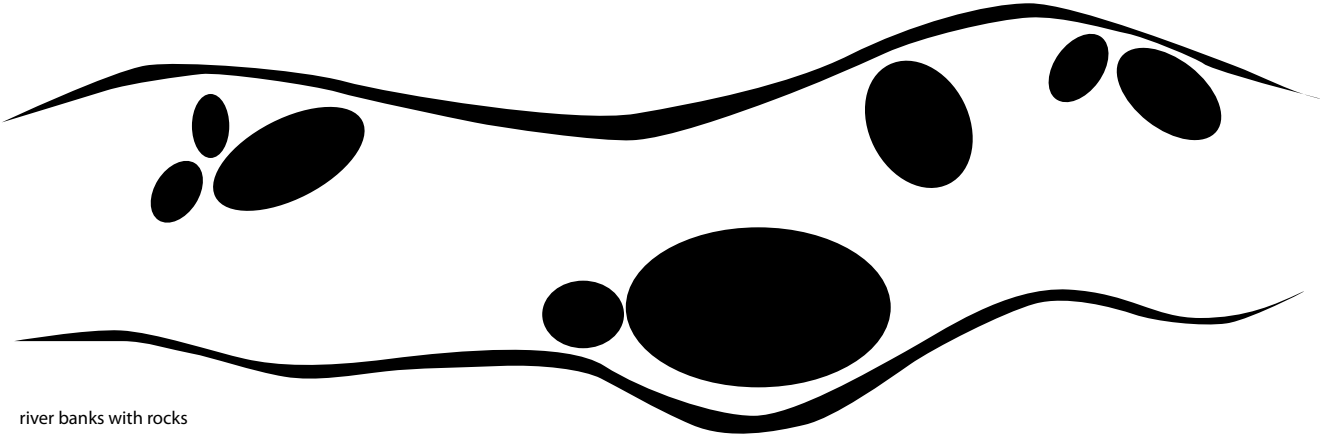
there are area were trees can grow wildly, there are three types of trees that will be mingled for a disor-ganized look. (tipuana tipu, acacia deallata, platanus) they bring shelter, peace and calmness etc.

except for these areas, that are what I would like to call passive areas because they are not actively experienced, there are also active areas scattered over the park with functions as playground and recreational sports etc.

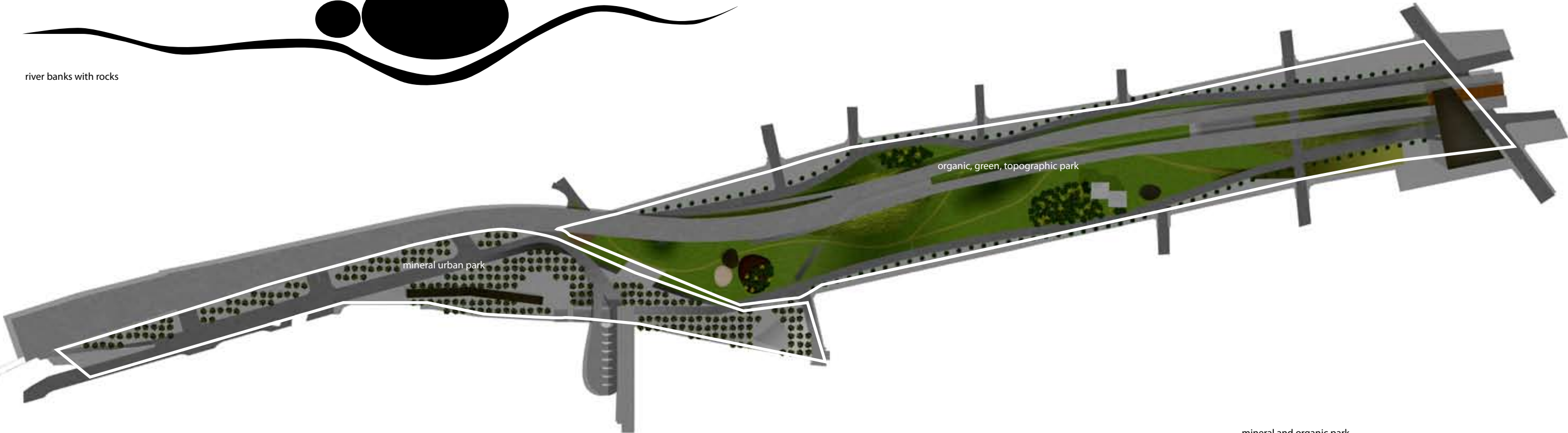
all but the water areas can be considered rocks in the oasis. a path meanders between them. the park is quiet, not overstuffed, the ‘flaneur’ (el que camina por el parque tranquilamente) can choose to remain in quiet zones, or can choose from any activity present. that activity is well bordered and does not contaminate the rest of the park. but this does not stand in the way of some spontaneous activities over the surface of the park.

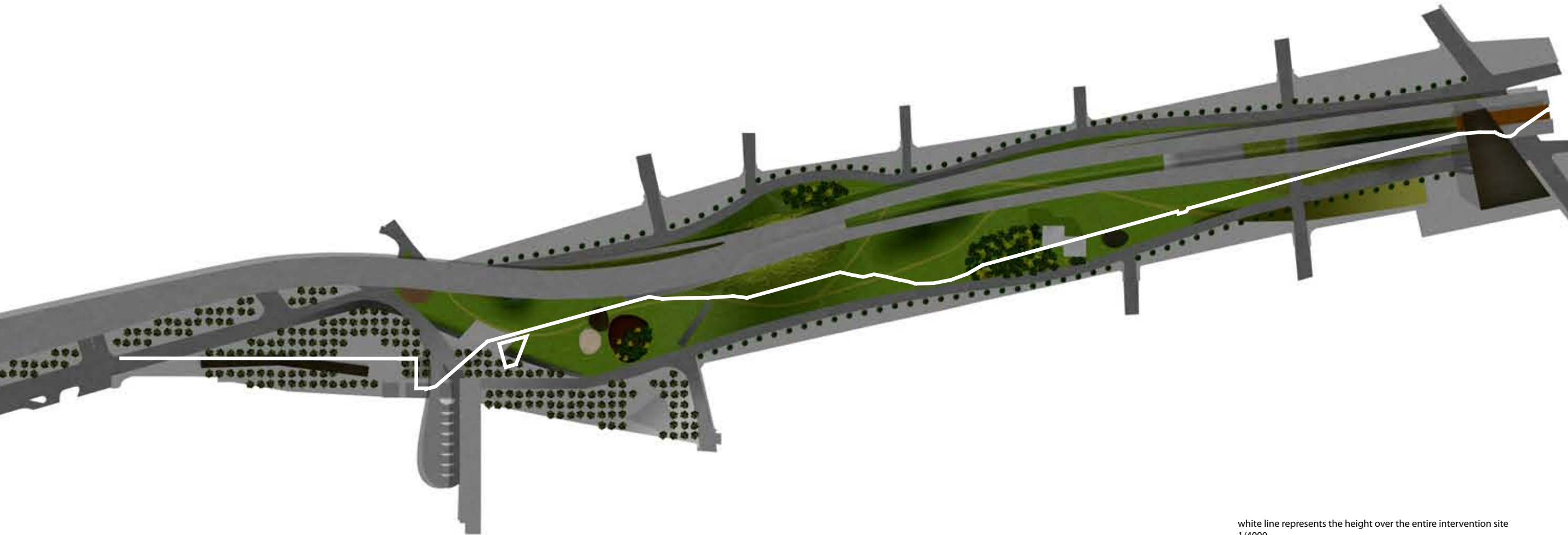
the height difference has been crucial in the development of barracas, and because of that I wanted to emphasize the topography. this organic movement is enhanced by the mineral slopes and the subte that searches its way over the autopista.

we will address this later, but the dynamics continue towards the dance center.

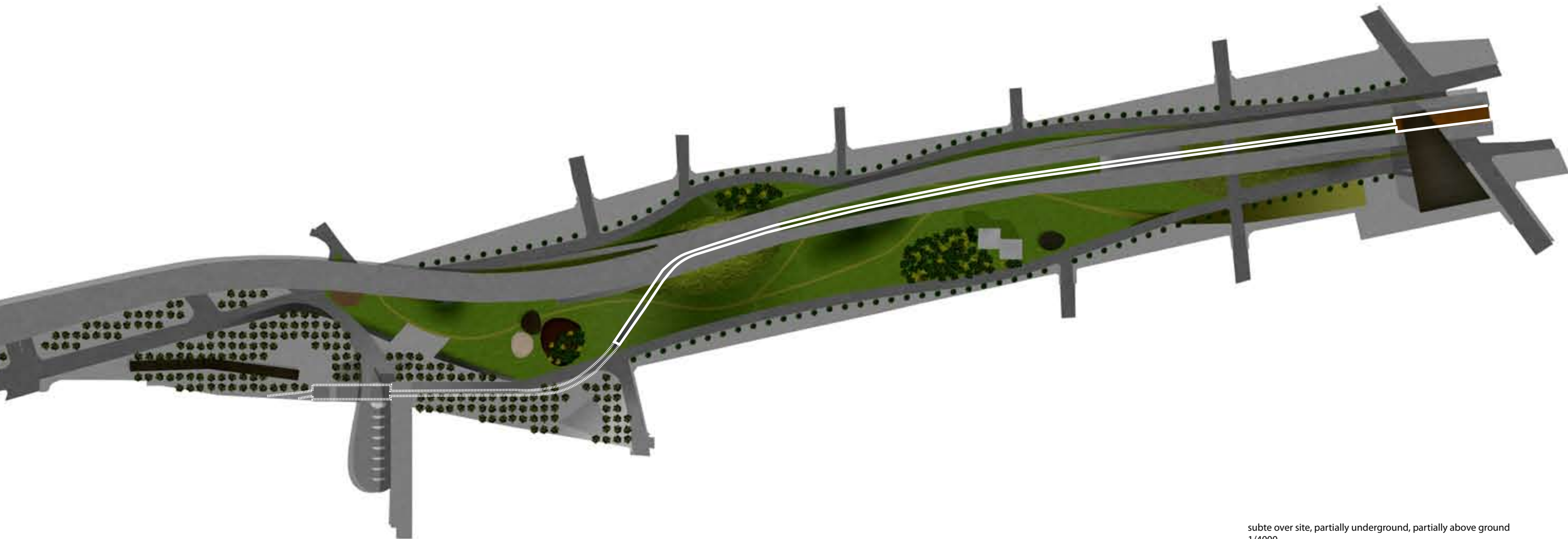


river banks with rocks

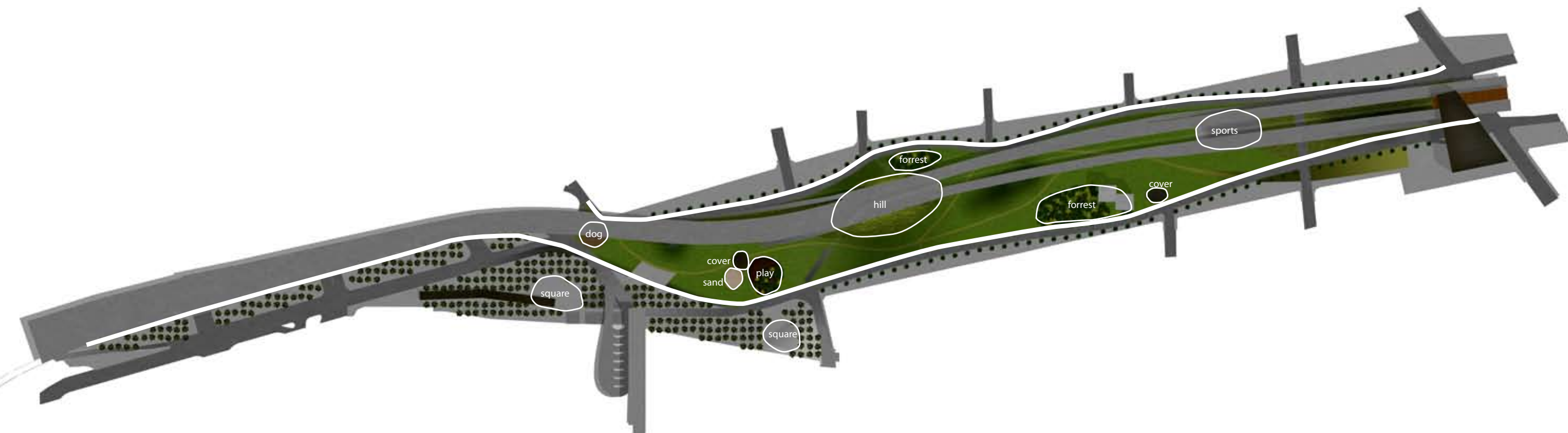


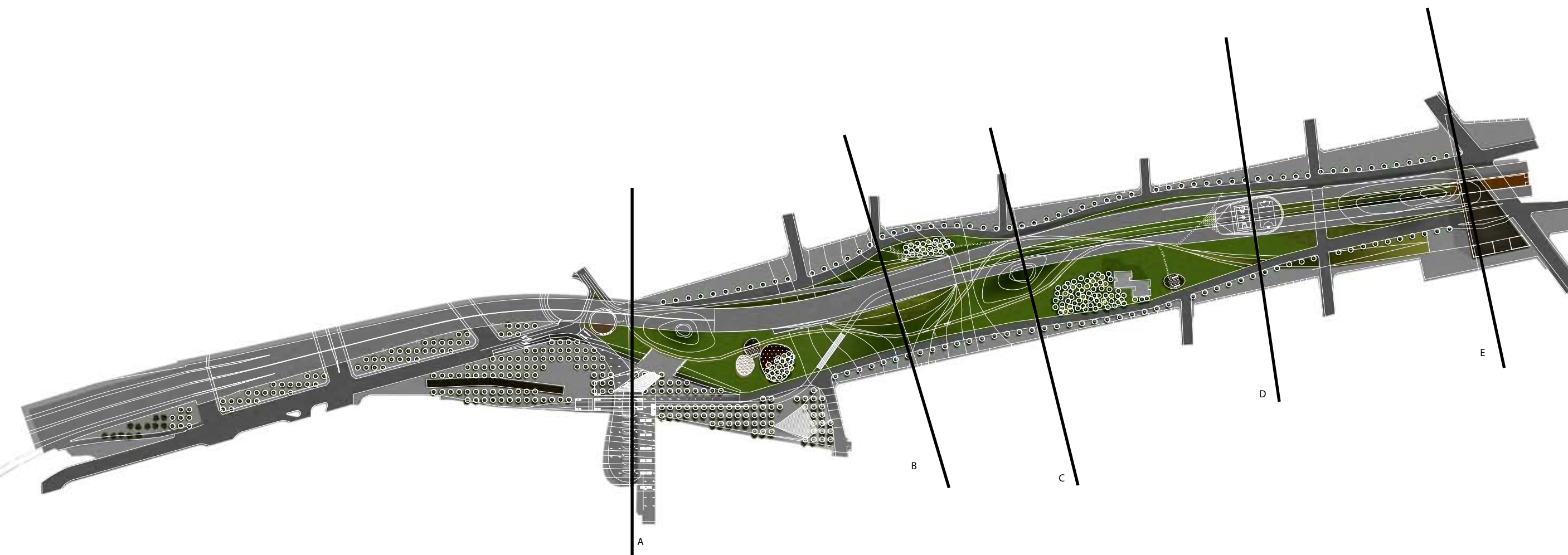


white line represents the height over the entire intervention site
1/4000

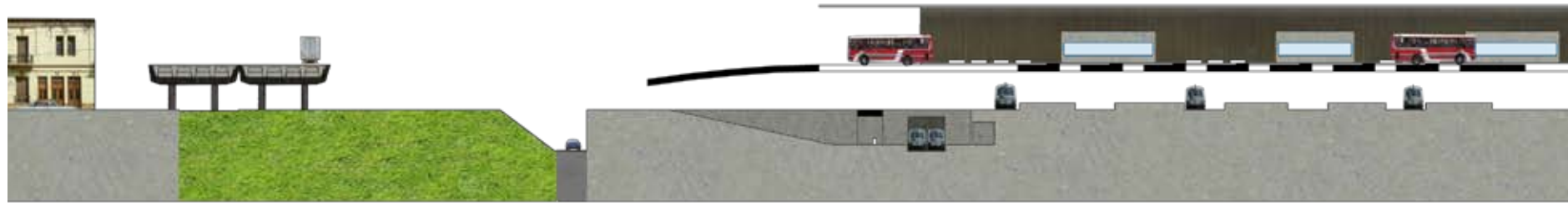


subte over site, partially underground, partially above ground
1/4000





cut through terrain | A



| B



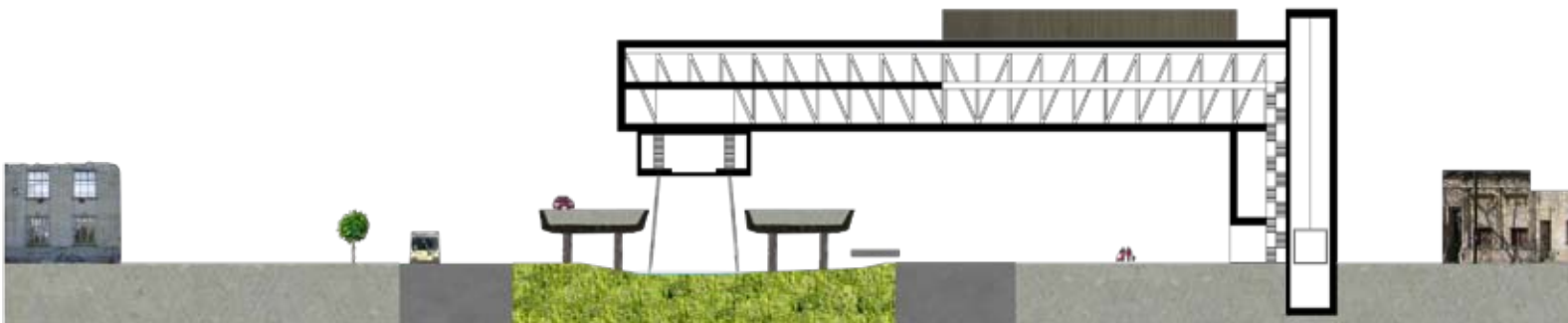
| C



| D



| E



BEFORE



AFTER







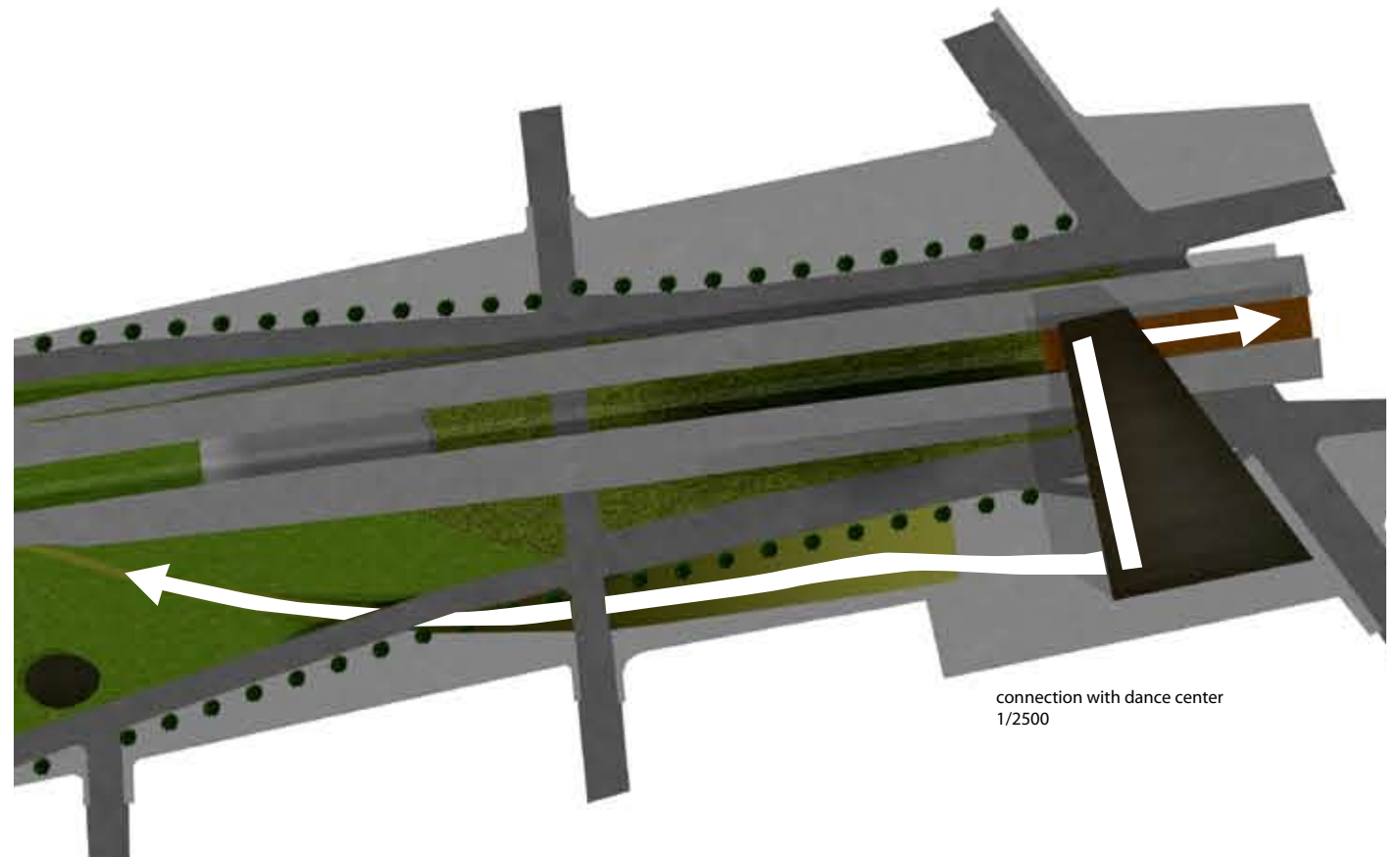


in the global strategy was shown that barracas has need for programmatic input as a carrier for a new experience. this dance center will be placed above the autopista so that it can be presented to the mass of cars entering and leaving buenos aires. not only can dance be presented to the mass, but the dancers inside can profit from the astonishing views. underneath the dance center a subte station connects with the building and with the ground. the dance center touches the ground on one sided creating the connectivity with the park, this circulation runs up, and moves transversally to the autopista towards the subte station. there it will go down to be sucked into the ever moving subte.

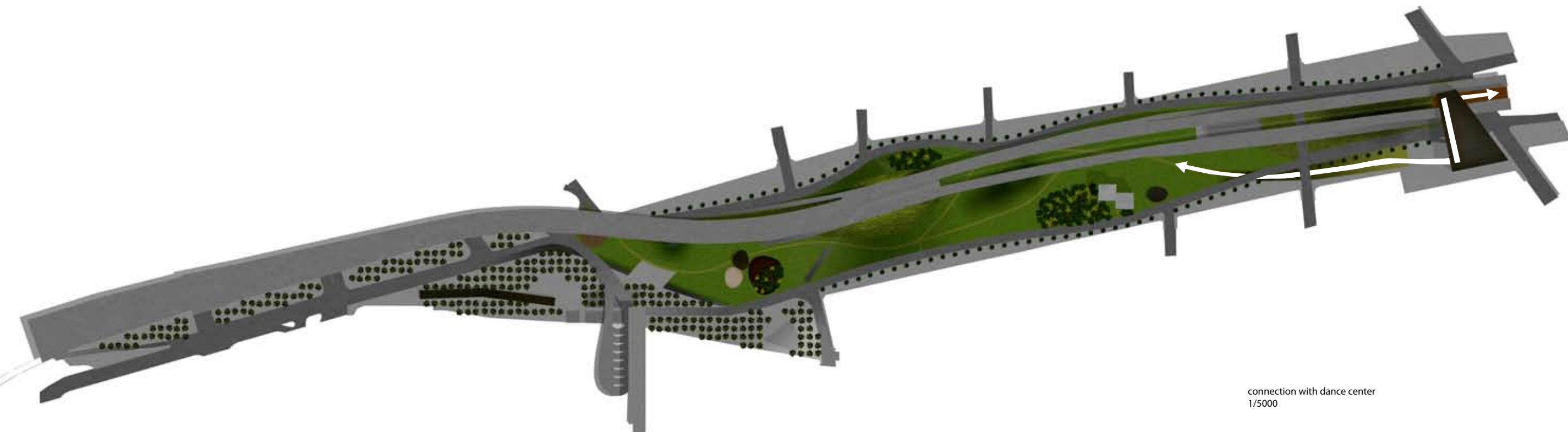
the building itself is based upon the construction needed to overcome a 60 meter gap. 11 meter high construction beams close the gap and because of their dimensions determine the interior of the building.

the borderline of the street was followed to finish of the view from the street and this creates a slant line in the building. the building profits from this line because it allows different types of typologies for practice chambers upto large performance theaters.

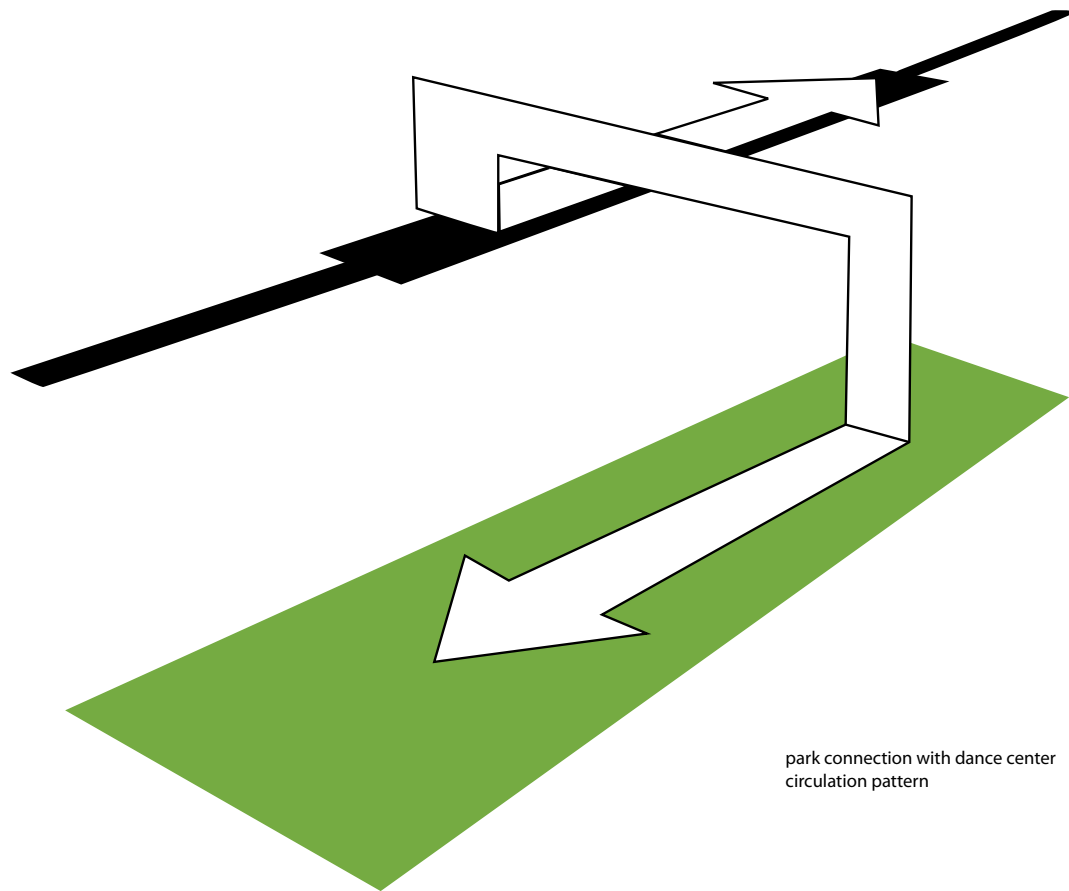
the path in the park goes down to be able to pass underneath without the interruption of a road, the park runs out under the dance center were one could get sucked up into the rythmic arhythmic sounds of a tango



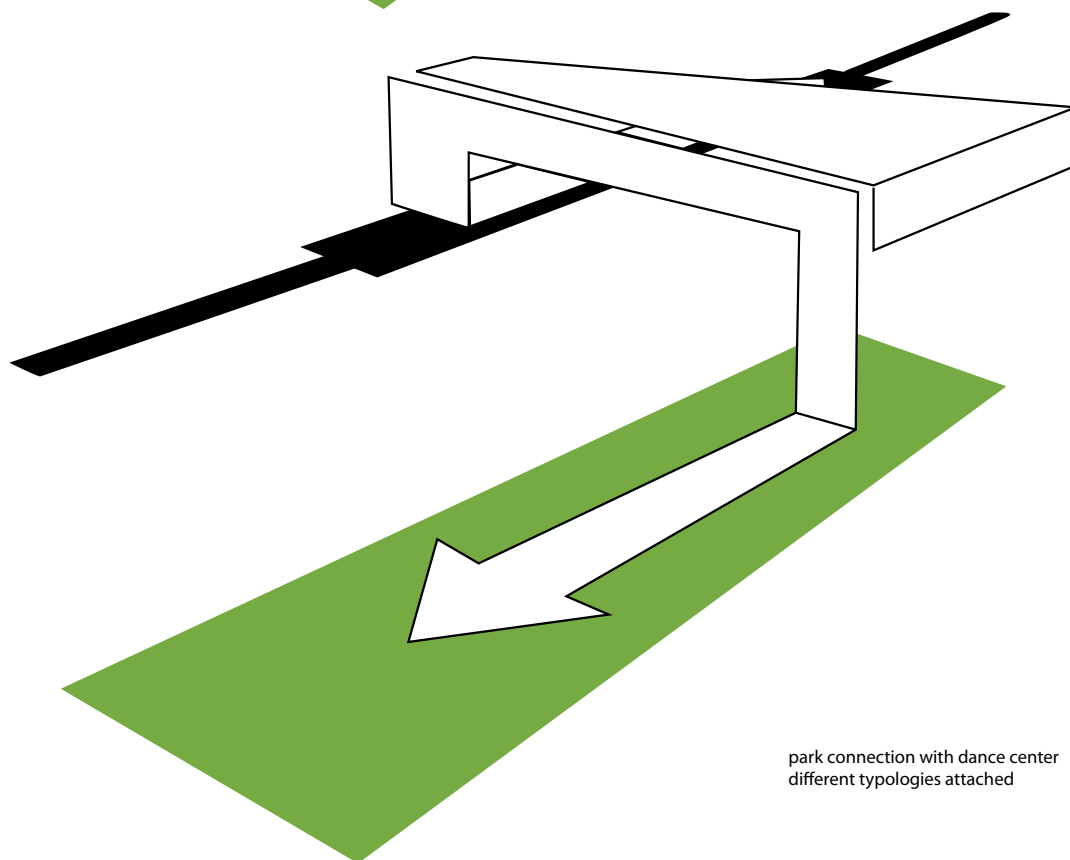
connection with dance center
1/2500



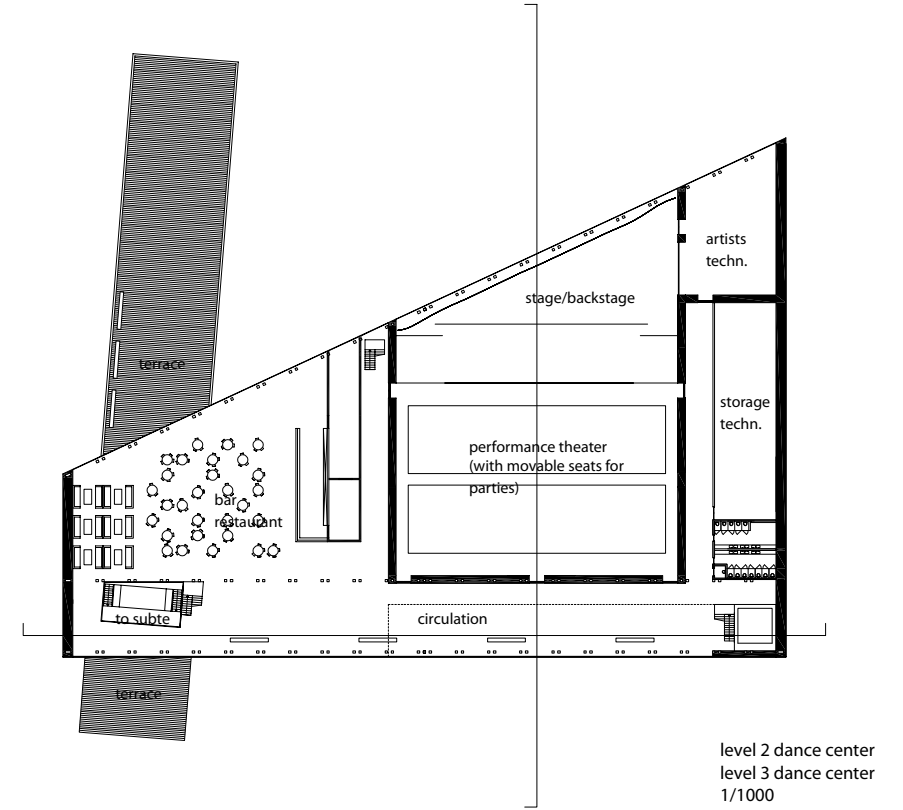
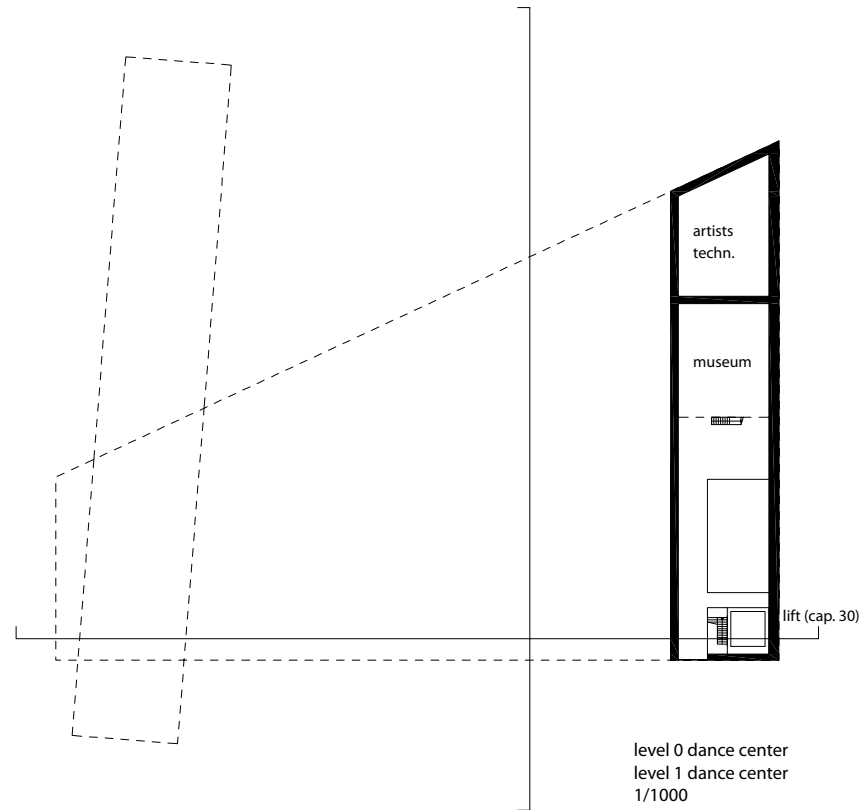
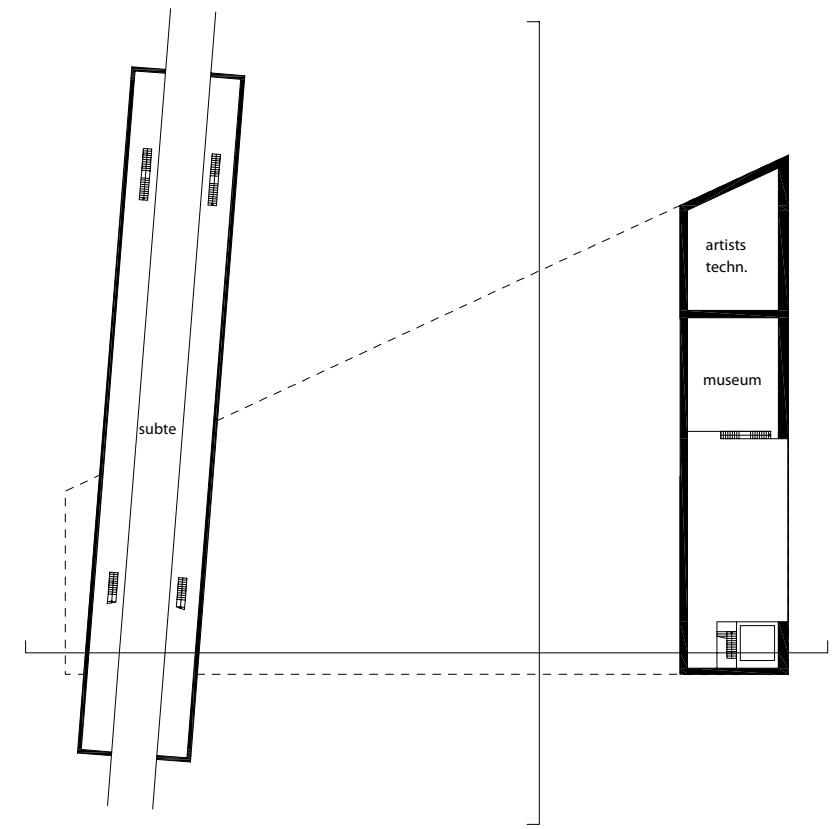
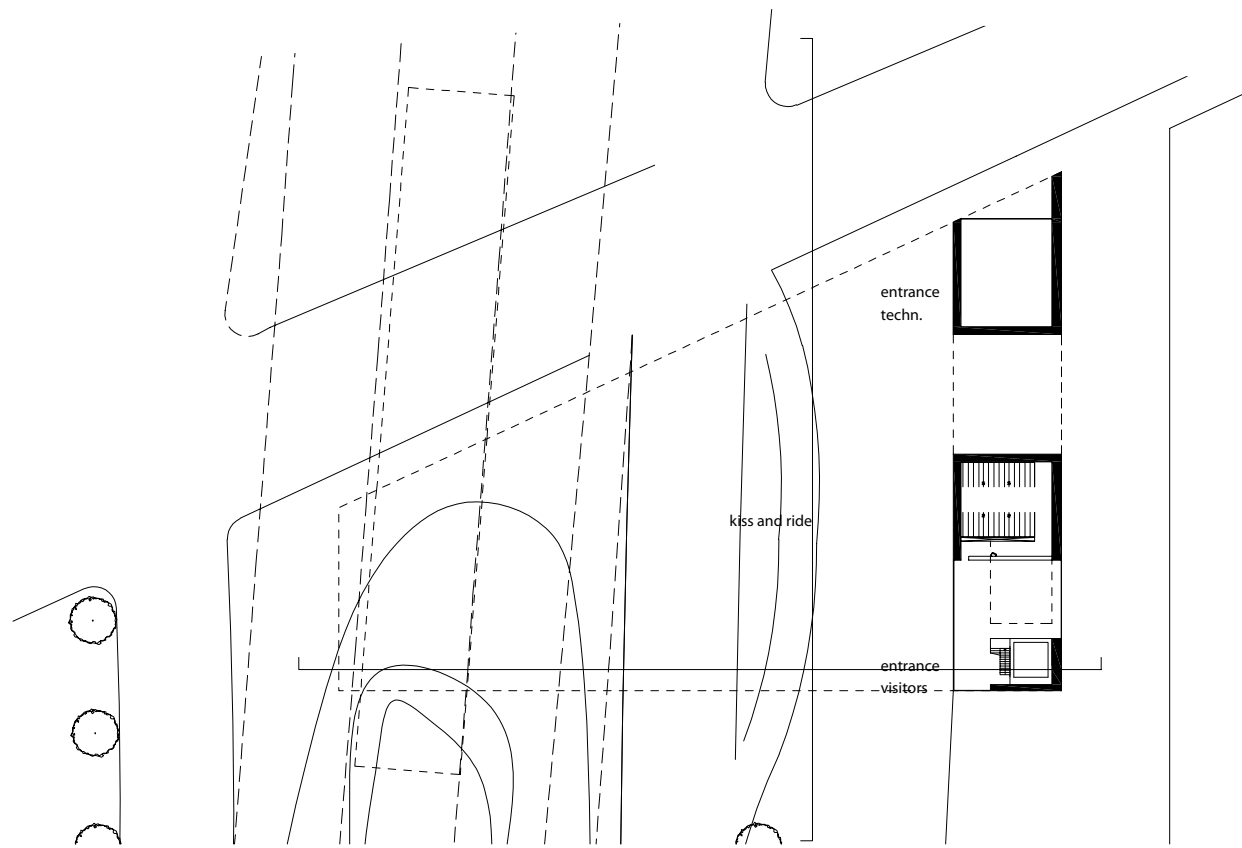
connection with dance center
1/5000

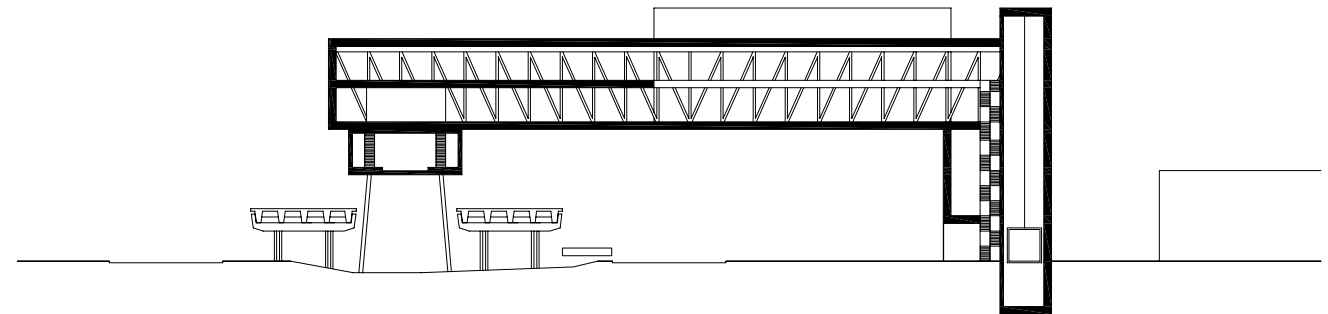
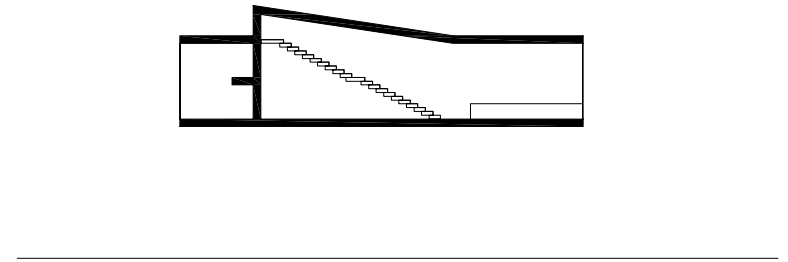
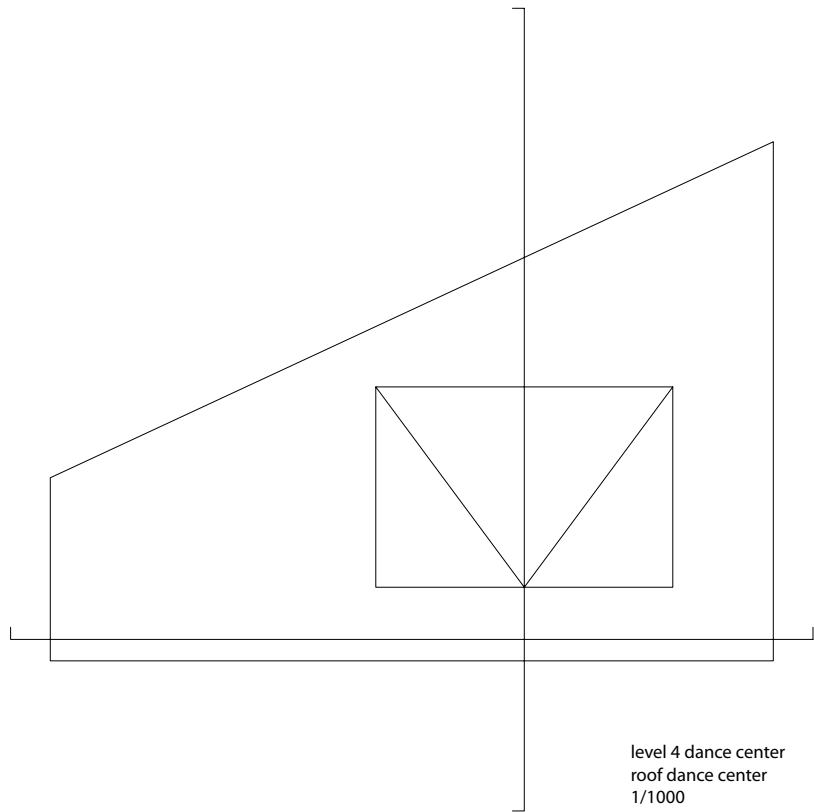
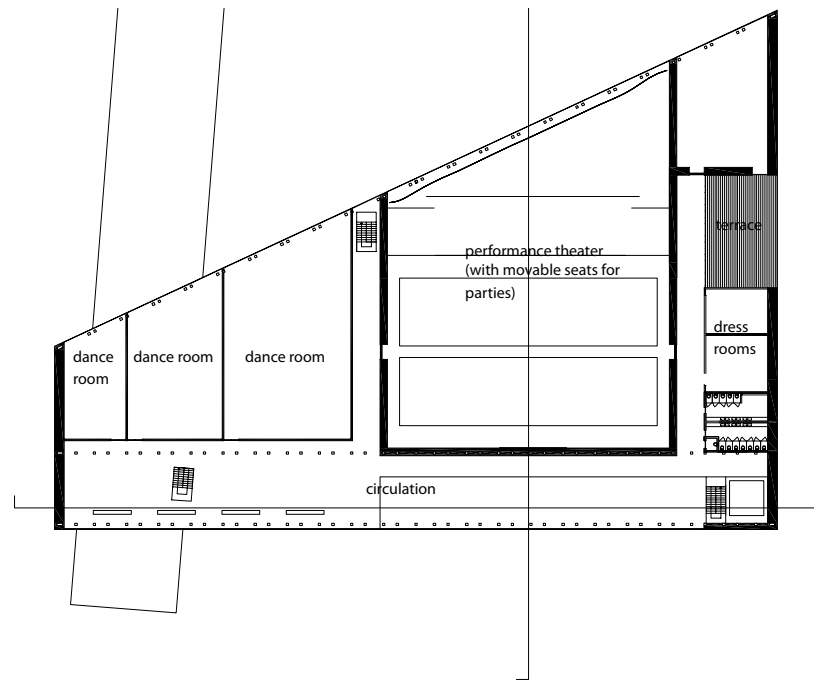


park connection with dance center
circulation pattern

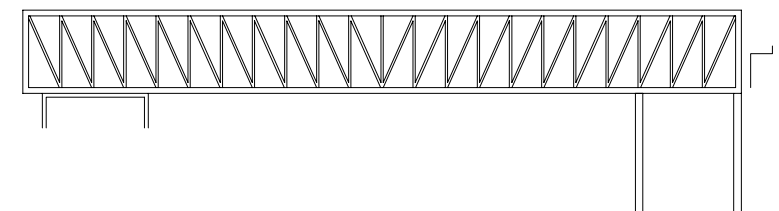
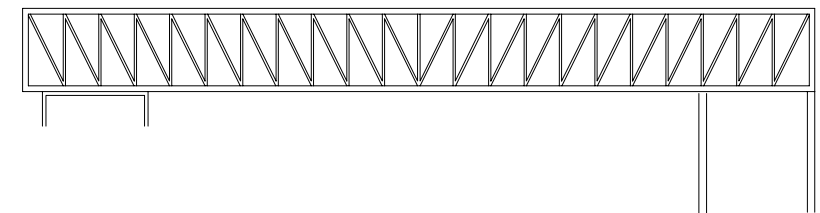
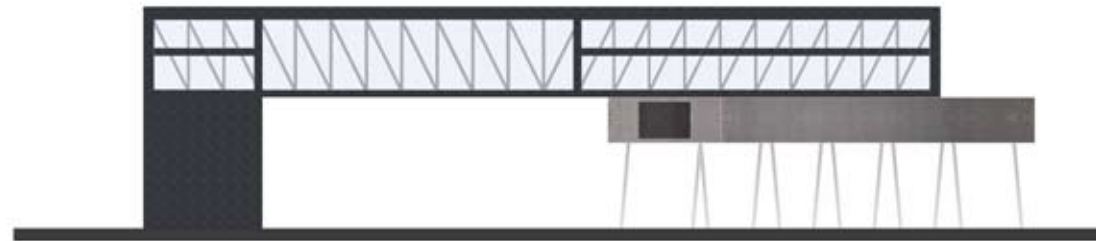


park connection with dance center
different typologies attached



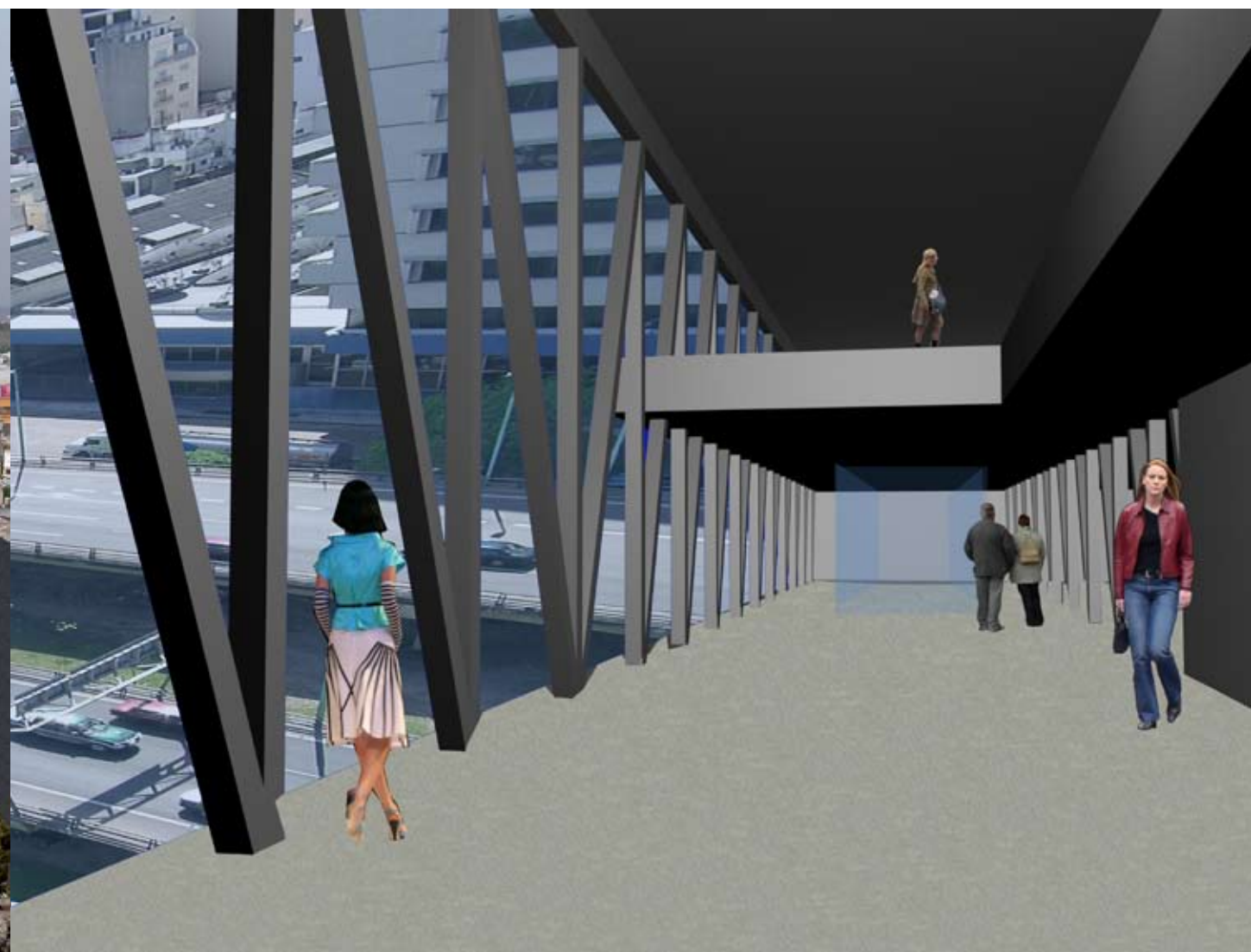


cut transversal dance center
cut length dance center
1/1000



facade towards riachuelo
facade towards center
1/1000

facade of subte (long legged mosquito)
structural beam in facade tow. riachuelo
structural beam in facade tow. center
1/1000

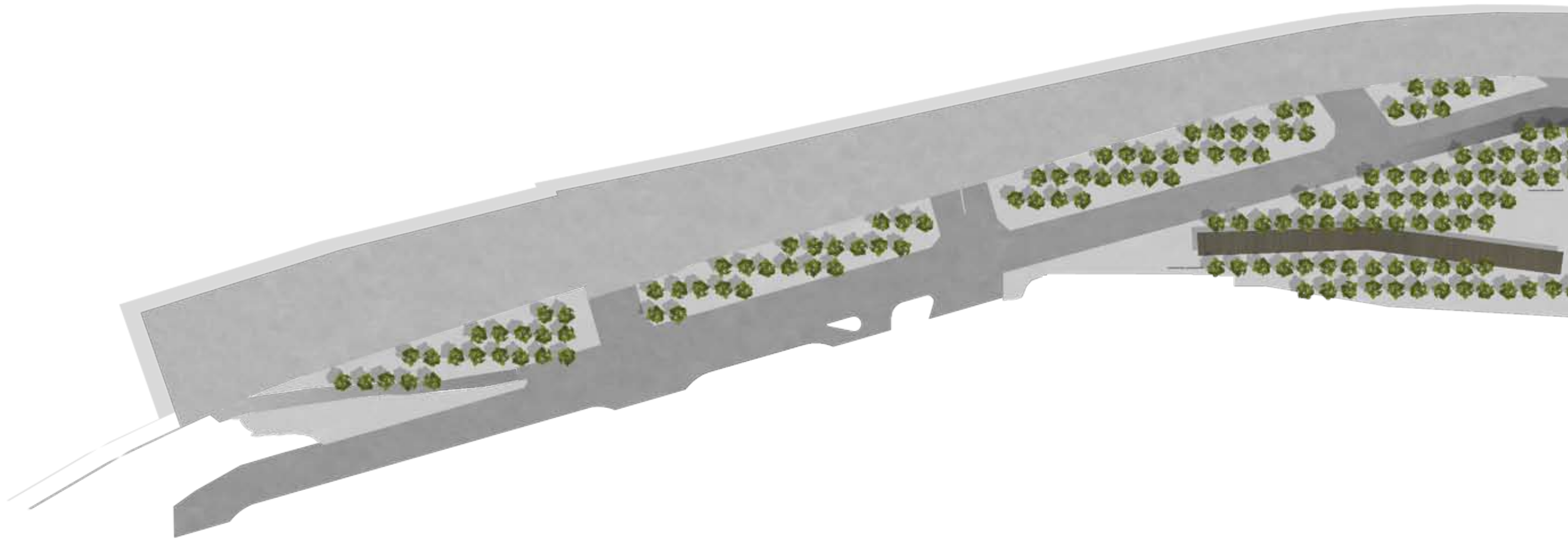


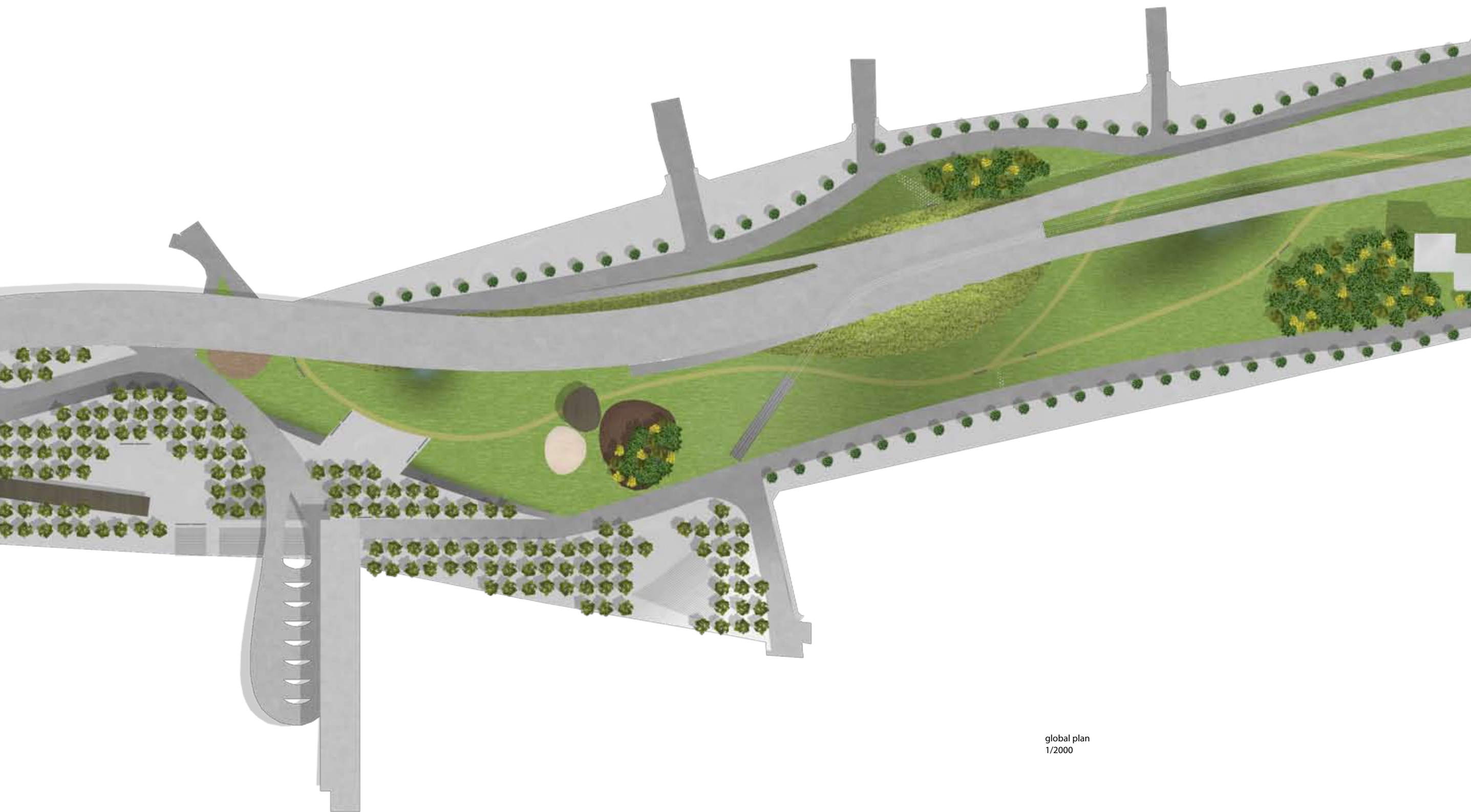


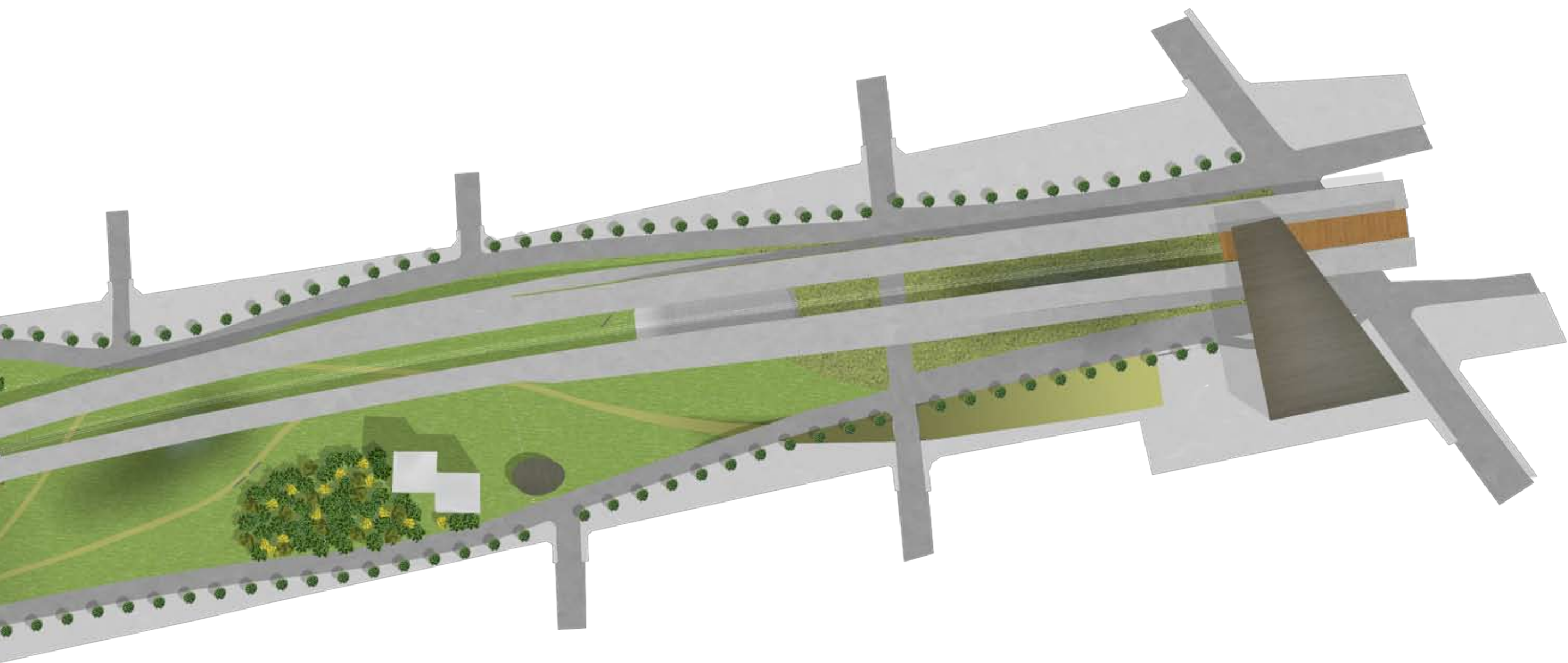
3 global plan



global plan
1/5000







gracias a todos,
kwinten
christian
bruno
leo
tom
julie
mama
papa
sven
iris
tom
y a todos los que estoy olvidando



